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“The design of the Society is to institute and promote enquiries into the History, Religion, Literature, Arts, and Social Condition of the present and former Inhabitants of the Island, with its Geology, Mineralogy, its Climate and Meteorology, its Botany and Zoology.”

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ROYAL ASIATIC SOCIETY.

CEYLON BRANCH.

BUDDHISM:—*CHARIYÁ PITAKA.*

BY THE REV D. J. GOGERLY.

[THE discourses of Buddha are contained in five large divisions called in Páli "Nikáyo," and in Sinhalese "Sangi:" the fifth of these, called "Kudugot Sangi," comprises 15 books, one of which is the Chariyá Pitaka, or a collection of preceding states of existence. The book is composed in Páli verse, and the legends it contains are brief accounts of events more largely developed in the book called Játaka, which latter book is also contained in the Kudugot Sangi. The tales in this small volume have all a reference to the desire supposed to have been felt by Gautama, in previous states of existence, to become a Buddha, and some of the means he used to accomplish his object. These means are divided into ten sections called Páramitá, and each of these, being subdivided into three other sections, makes the whole number thirty. Only a part of these means are contained in this work. The portion now presented to the Society contains the Páramitá of Almsgiving; the remainder will be given on a future occasion, with such observations as may be necessary for its elucidation. The book is also called Buddhapadána, or sections of Buddha's previous existences.]

THE whole of my proceedings during four asankhya and one hundred thousand kalpas has been for the purpose of becoming a Buddha.

Omitting my conduct in various births during past kalpas, I will declare my proceedings during the present kalpa: listen to me!

At one time I was a hermit named Akitti, and having entered a large forest, a wilderness without inhabitants, I dwelt there.

The king of the gods (Sakra) being moved by the effulgence of my austerities, assuming the form of a mendicant Brahmin, approached me to obtain food.

Seeing him standing at the door of my residence, I put into his dish the greens I had brought from the forest, which were unmixed with oil or salt.

Giving him these, I entered my pansala, and without seeking for other food I placed my bowl in an inverted position.

A second and a third time he came, and I thrice gave him (what I had collected) with an unshaken and imperturbed mind.

My body was not emaciated in consequence of that (abstinence from food), but I spent the time in mental enjoyment.

Had I met with one worthy of receiving alms throughout a whole month, or two months, I would have given these eminent alms with an unshaken and imperturbed mind.

I did not give these alms hoping to receive thereby honor or profit, but I performed the actions hoping to become thereby a Buddha.

End of Akitti Tápasa.

Afterwards I was a Brahmin named Sankha, and, intending to pass over the ocean, I went to the port.

I there saw one who had subjected his passions coming on the high road from the desert, walking on the hard and parched ground.

Seeing him coming on the road I thus thought :

‘Here is a field for obtaining merit by any person desirous of virtue.

‘The husbandman at a suitable season perceives a field, but if he neglect to sow it with seed, he obtains no profit from it.

‘So I, being desirous of merit, perceive a field for its attainment, of pre-eminent excellence: if I do not perform an act of kindness I shall derive no merit therefrom.

‘As the Minister, desirous of being steward of the royal household, will lose his office if he neglect to supply the necessary provisions and wealth :

‘So I, desirous of being eminently meritorious, shall be deprived of merit, if, seeing this holy man, I do not present him with offerings.’

Thus thinking, I took off my sandals, and worshipping his feet, I presented him with my sandals and umbrella.

Thus I gave him alms, received thereby happiness a hundred-fold, and continued to fill up the measure of my liberality.

End of the Brahmin Sankha.

Afterwards I was Dananjaya, king of the great city of Indapatta, exercising the ten regal virtues.

Some Brahmins came to me from Kálinga, and requested me to give them my noble, valuable, state elephant.

They said, “We have no rain in our country and there is a great famine ; give us your noble elephant, which is as a dark mountain of antimony.”

When supplicants approached me it was not becoming that I should reject their request, and break my rule of liberality. I therefore gave them my large elephant.

Taking the elephant by the trunk, and from a golden vessel pouring water on the hands of the Brahmins, I gave the elephant.

When I thus gave the elephant my councillors enquired, “Why do you give your noble elephant to beggars ?

“If you give your valuable state elephant, able to ensure victory in war, what will you do with your kingdom ?”

(I replied) “I would even give my kingdom : I would give my own body: my desire is to become Buddha, and on that account I give the elephant alms.”

End of Dananjaya.

At one time I was the powerful universal emperor, lord of the earth, named Sudassano, residing in the city named Kusawatti.

I caused proclamation to be made there thrice a day in various places: 'Who wishes for any thing? Who desires any thing? That property shall be given him.'

'Who is hungry? Who is thirsty? Who requires garlands, cosmetics, or various coloured garments to cover his nakedness?'

'Who requires bowls or umbrellas, or beautiful soft slippers? I will give them.' Thus, evening and morning, I caused proclamation to be made in various places.

I had storehouses in many hundred places, and gave to applicants whether they came by day or by night.

Whatever they wished for they obtained, and went away with their hands full. Thus, during the whole of my life, I continued to give eminent alms.

I did not give things to which I had an aversion, or things which I had not stored up, but I gave as a sick man to obtain a cure. I did not for base purposes give alms to supplicants, but with a pure and sincere desire to become Buddha.

End of Sudassano.

At another time I was the Brahmin Góvinda, the spiritual guide of seven monarchs, honored by sovereigns.

Whatever I received from those seven monarchs I gave in alms, as from an inexhaustible ocean.

I did not give things to which I had an aversion, or things which I lightly prized; but I gave valuable gifts with a desire to become Buddha.

End of Góvinda.

Afterwards I was Nimi, the learned and virtuous king of the famed city Mithilá.

There I caused storehouses to be erected at the four cardinal

points, and continued to give alms to beasts, birds, men and women.

I continued without intermission to give valuable alms, as garments, couches, meat, drink, and condiments.

As the servant who attends on his master for gain endeavours by thought, word, and deed, to gain the good will of his employer :

So in every birth I endeavoured to supply food and alms to persons, being desirous of becoming a Buddha.

End of Nimi.

Afterwards I was prince Chanda, son of the king of Puppiwatti.

Being delivered from death, and with fear escaping from the sacrificial enclosure, I gave alms largely.

I ate not, I drank not, I took no refreshment, even if it were for five or six days, unless I had given alms to some holy man.

Like as a merchant who, having collected his goods, takes them to the place where he can obtain large profits :

Thus the giving to others of your meal is highly advantageous. To give to others therefore is proper : it will produce a hundred fold.

Knowing this, I gave alms from birth to birth. I continued without intermission to give alms, that I might become a Buddha.

End of Chanda Kumára.

I was Sivi, king of the city of Aritṭha ; and sitting in my magnificent palace I thus thought :

There is no kind of alms among men which I have not given ; if any one should even beg from me my eyes, I would give them without hesitation.

Sakra, the sovereign of the gods, knew my thoughts, and sitting amidst his attendant gods, he thus spoke :

"The King Sivi, possessing super-human power, sitting in his magnificent palace, and meditating on the various kinds of alms, does not perceive one that he has not given.

"I will ascertain what his thoughts are; wait here a moment until I know his mind."

Having assumed the form of a trembling, hoary-headed, wrinkled, decayed, and emaciated blind man, he approached the king.

He having assumed this form, elevating his left and his right arms, with clasped hands raised to his head, he spake these words:

"Great and just sovereign, the author of your kingdom's prosperity, the fame of your almsgiving has ascended up to gods and men; I have a petition.

"I am become blind of both eyes: give me one of your eyes, and retain the other for your own use."

When I had heard these words, with a mind excited by joyful emotions, I thus addressed the trembling supplicant:

"Thou who hast come soliciting the gift of an eye hast come knowing my thoughts while I was in the palace.

"My desires are accomplished, my wish is fulfilled, I shall this day give a supplicant such alms as I never gave before.

"Come here, Sîwaka: arise, be not unskilful, be not negligent: pluck out both my eyes and give to the beggar."

My obedient slave Sîwaka being thus addressed, plucked out my eyes like the kernels of a palm tree, and gave them to the beggar.

In purposing to give, in giving, and after having given the alms, I had no other design than that of becoming a Buddha.

Not that I had an aversion to my two eyes: my body was not disagreeable to me: but my desire was to become a Buddha, and therefore I gave my eyes.

End of the story of King Sivi.

My mother Pusati, the daughter of a king, was in a previous birth the queen of Sakra.

He, the king of the gods, seeing that the term of her life had ended, said : “ I will give you ten gifts. What ten gifts, my friend, do you desire ? ”

The goddess hearing these words, replied to Sakra : “ What fault have I been guilty of ? Have I become displeasing to you ? Why do you drive me from my lovely residence, as with an earth-shaking wind ? ”

When she had thus spoken, Sakra replied : “ You have been guilty of no crime, neither are you displeasing to me.

“ It is only this, the term of your existence here draws to a close. Accept therefore the ten excellent gifts I offer you.”

Pusati then accepted with joyfulness the ten gifts, including me, presented by Sakra.

Pusati, ceasing to exist there, was born of a regal family, and became united to king Sanjaya, of the city of Jétuttaram.

When I was conceived in the womb of my beloved mother, by my glory she became constantly attached to almsgiving.

Freely she gave to the poor, to the sick, to the old, to mendicants, to travellers, to men and women, to Samanas, to Brahmins, to those of subdued passions.

Pusati, having carried me in her womb ten months, passing through the city, brought me forth in the midst of the Wessa street.

I did not receive the name either of my father or my mother, but having been born in the Wessa street, I was called Wessantara.

When I was a child eight years of age, I sat in my palace and thought of giving alms.

I thought, ‘ Should any one request from me my heart, my eyes, my flesh, my blood, or my body, I will give them to him.’

When I had formed this firm resolution, the solid earth, mount Méru, and the trees of the forest were shaken.

In half a month, on the Upósatha of the full 15th day of the moon, I mounted my elephant Paṇḍara, and went forth to give alms.

Brahmins from Kálinga came to me and requested me to give them Paṇḍara, my valuable state elephant.

They said: "From want of rain there is a great famine in our land; give us your large elephant, your excellent elephant altogether white."

I thought, 'My mind delights in almsgiving; with an unshaken determination I will give what these Brahmins ask, I will hide nothing.'

When these supplicants approached me, it not being proper that I should repulse them, or break my determination to bestow alms, I gave them my large elephant.

Taking the elephant by the trunk, I poured water from a golden chalice upon the hands of the Brahmins, and gave them the elephant.

When I had thus given the excellent and perfectly white elephant, the earth, mount Méru, and the trees of the forest shook.

The inhabitants of Siwi being displeased at my giving the elephant, assembled together and banished me from their land, saying, "Go to the Wapka mountain."

Being thus driven away by them, I still remained firm and unshaken, and begged permission to be allowed once more to give alms.

The inhabitants of Siwi granted my one request, and I accordingly published my intention by beat of drum, and gave excellent alms.

Although the fear-inspiring sound ascended that I was banished on account of excessive almsgiving, still I gave alms.

Having bestowed the chief gifts, as elephants, horses, chariots, male and female slaves, oxen and wealth, I departed from the city.

Having departed from the city, when I turned round to look at it, the earth, mount Méru, and the trees of the forest shook.

Arriving at the junction of the four great roads, I gave away the carriage in which we four persons came, and taking Maddidéwi aside, I privately said to her :

“Maddi, do you take Kaṇhajānā, she is the younger and light; I will carry Jāli, her brother, who is older and heavy.”

Then Maddi took Kaṇhajānā, who was like the flower of the lotus, and I took the royal child Jāli, who was like a heap of gold.

Thus we four high-born and delicate princes, travelling through difficult paths, proceeded towards the mountain Waṇka.

When we met any person, or any one overtook us, we enquired, “Which is the road to the mountain Waṇka?”

They, beholding us with compassion, said “You have much suffering to endure : distant is the mountain Waṇka.”

When in the forest the children saw a tree laden with fruits, they cried to obtain some.

The lofty and wide-spreading tree, perceiving the weeping children, of itself bowed down its branches for the children to approach.

The exquisitely beautiful Maddi, seeing this wonderful and miraculous event, thus joyfully expressed her admiration :

“Assuredly this is the most wonderful event ever seen in the world : by the splendid virtue of Wessantara the tree of itself bows down.”

The Yakkha, out of compassion to the children, shortened the path, so that the day after our departure we arrived at the country called Chétiya.

Here 60,000 princes resided, our maternal uncles, who with clasped hands on their foreheads met us weeping.

Here remaining, we conversed with the inhabitants of Chétiya and with their families, and departing thence we arrived at the mountain Waṇka.

The king of the gods (Sakra) called the powerful Wissakamma (the architect of the gods) and said, "Erect a well-built dwelling, a commodious and pleasant pansala."

The powerful Wissakamma, obeying the commands of Sakra, erected a well-built dwelling, a commodious and pleasant pansala.

We four persons having arrived at the quiet and peaceful forest, dwelt there by the mountain.

I, Maddi Déwi, and the two children Jáli and Kaṇhajiná, consoling each other, lived in that residence.

As the children did not go out, I was not alone in the dwelling. Maddi brought herbs from the forest and supported us.

While I resided in the forest a beggar came to me and requested me to give him my two children Jáli and Kaṇhajiná.

When I saw the beggar approach my heart rejoiced, and taking my two children I gave them to the Brahmin.

When I gave my own children to the Brahmin Jútaka, then the earth, mount Méru, and the trees of the forest shook.

Again, the god Sakra descended and, assuming the form of a Brahmin, requested from me my chaste and virtuous wife, Maddi Dewi.

Taking Maddi by the hand and filling the Brahmin's hand with water, with a cheerful mind I gave Maddi to him.

When I gave Maddi, the gods of the sky rejoiced, the earth also, mount Méru, and the trees of the forest shook.

When I gave my children Jáli and Kaṇhajiná, and also my chaste wife Maddi, I thought of nothing else but of becoming a Buddha.

Not that my two children or Maddi Déwi were disagreeable to me, but, desiring to become Buddha, I gave that which was dear to me.

Afterwards, when my father and mother came to the great forest sorrowfully and with tears enquiring after my will, with

modesty and reverence I approached them : then also the earth, mount Méru, and the trees of the forest shook.

Then departing with my relations from the great forest, I entered the delightful city of Jetuttara, that chief of cities.

Then the seven kinds of jewels were rained from heaven and the clouds poured down water : the earth also, Maha Méru, and the trees of the forest shook.

The insensible earth, unconscious of joy or sorrow, was thus seven times shaken by the power of my almsgiving.

End of Wessantara.

At another time I was a hare, a walker in the forest, eating grass, leaves, branches and fruits, injurious to none.

A monkey, a jackal, a water hen, and I were associates, meeting together morning and evening.

I instructed them in good works, saying "Depart from degrading vice, and perform that which is good."

On the Upósatha day, seeing the full moon, I said :

"To-day is the Upósatha day. Prepare alms and give to worthy persons : having given alms, spend the day in tranquillity."

They, approving my advice, prepared alms according to their ability, and sought a person worthy of receiving them.

Sitting down I thought :

'It is proper to give alms to holy men. Should I meet such an one, what have I to give him ?

'I have no sesamum, grain, maize, rice, nor ghee. I live on grass, and grass I cannot give.

'Should any holy man come to me seeking food, he shall not go away empty : I will give him my own body.'

Sakra, knowing my thoughts, assumed the form of a Brahmin seeking alms, and came to the place where I was sitting. When I saw him, I rejoiced and said :

"It is a happy circumstance that you have come to me for food."

"I shall to-day give that in alms to you which I never gave before.

"You are a holy man and therefore should not injure others. Come, collect some sticks and kindle a fire; I will cook myself, and thou shalt eat that which is cooked."

He replied, "It is good!" and cheerfully collecting wood, he raised a great heap, and reduced it to a bed of burning charcoal.

When the great heap was shining with heat, I leaped up and fell into the midst of the flame.

Thus, as any one entering into cold water rejoices when the burning heat of his body is assuaged :

So I, entering into the blazing fire, felt my whole body at ease, as though I had leaped into cold water.

I thus gave my whole body to the Brahmin; my skin, my flesh, my tendons, my bones, my heart, to the Brahmin.

End of the tale of the Hare.

THE LAWS OF THE BUDDHIST PRIESTHOOD.

BY THE REV D. J. GOGERLY.

[In the first paper concerning Buddhism, which I had the honor of reading before this Society, in May, 1845, it is stated that the sacred writings of the Buddhists are divided into three great sections, called the Winaya, the Sūtra, and the Abhidharma Piṭakas; the two latter elucidating the doctrines of Gautama, and the first one containing the laws and regulations for the government of the Priests, together with occasional doctrinal discourses. The books on discipline, forming the Winaya Piṭaka, are five: the first and second containing the criminal code, the third and fourth the ecclesiastical and civil code, and the fifth is a recapitulation of the whole in a kind of catechetical form.

My present object is to give a translation of the precepts contained in the ecclesiastical code, in the order in which they are recorded, together with so much of the text as may be necessary to explain the connection between the precepts.

The two books containing the ecclesiastical code are named Mahā Waggo and Chūla Waggo; the former one will occupy our attention first.

In the paper read in May, 1845, the beginning of the Mahā Waggo is translated, and the account is brought up to the time when Gautama converted the five associated ascetics who had been his companions during the six years he spent in austere penances, hoping thereby to attain to the dignity of a supreme Buddha. We resume the subject at this period.]

The five ascetics having received Gautama as their teacher, and perceiving the correctness of his doctrine, requested to be admitted priests under his government, both as respected doctrine and discipline. He acceded to their request, saying:

“Approach, Bhikkhus! Clearly is the doctrine declared! Walk in the path of purity, by which all sorrow may be terminated.”

In his first discourse, Buddha had taught his disciples that existence and suffering are inseparably connected:—that the

perpetuation of existence results from either a continued desire to live after death, or from a desire to terminate upon death the existence of a living entity or soul:—that the only means by which a termination both of sorrow and existence may be secured is to be entirely free from all desire to existing objects, and to existence itself: and that this freedom from desire can only be attained by a life of unspotted purity.

But now that they have received him as their teacher, he further instructs them that there is no existing thing with which they can identify themselves, or say “This is I: this constitutes my soul.” He speaks of the body, of the perceptions, sensations, and reasonings, and also of the consciousness; and of each severally he says: “The wise and learned disciple will by his wisdom perceive these are not mine; they do not constitute me; these are not to me a soul.” This doctrine is fully developed in other discourses, in which he denies the existence of a living entity called a soul: life, with all its emotions, are merely sequences; they have thus continued by an uninterrupted series, the commencement of which cannot be traced up to the present moment; they are never for two consecutive moments the same, but form one perpetual system of mutation. He concludes his discourse by saying, that the wise and learned disciple, by perceiving these truths, ceases to have satisfaction either in things corporeal or mental: being no longer satisfied with them, he ceases to be attached to them; ceasing to be attached to them, he becomes free; being free, he obtains the knowledge that he is freed (from all attachments); his births become terminated; his path of purity is perfected; his necessary work is completed; and he knows, that for the accomplishment of that object (freedom from future existence) nothing more remains to be done. Upon hearing this discourse, the five priests were greatly edified, and their minds became so liberated from desire, that it never again was experienced by them.

This freedom from desire (and the perfect purity necessarily

connected with it) constitutes the state of a Rahat. Supernatural wisdom and super-human power result from these: but he who receives the doctrine of Buddha, and is thus free, is a Rahat. "There were now," says the author, "six Rahats in the world."

The next accession to the priesthood was from the family of a wealthy nobleman of Benares. His son Yaso became disgusted with the sensualities with which he was surrounded, and, filled with uneasy emotions, he left his house at night and repaired to Buddha at Isipatana, a retreat near the city. Buddha calmed his mind with his conversation, and the young nobleman was convinced of the truth of his doctrine. The mother of Yaso, missing her son, alarmed her husband, who, sending out mounted servants to seek him in every direction, repaired himself to Isipatana, where he also became converted to the faith of Gautama, and consented to the desire of his son to become a priest. The whole family followed the example of the nobleman, and embraced the new religion.

There were four young men of noble birth, the friends of Yaso, living in Benares. They, hearing that Yaso had forsaken secular life, shaved his head and beard, put on the yellow robe, and become a priest of Buddha, were induced to follow his example. Fifty young men also, who were the friends of Yaso in the provinces, were persuaded by him to become his companions; and as they all became Rahats, the Buddhist community consisted of 61 priests, all of whom had attained the perfection of virtue.

Buddha then called his priests together and directed them to travel into the provinces, to disseminate his doctrines, that from a feeling of compassion they might promote the profit and happiness of gods and men. He added "Go singly, priests, not two to one place, and preach this doctrine which is excellent in its commencement, excellent in its continuance, and excellent in its termination, which is replete with instruction and clearly expressed: thus make known the perfect and pure path of the

priesthood." He at the same time expressed his own intention of going to a village near Uruwélá, to preach his doctrines.

The priests, in obedience to the directions they had received, travelled into the provinces, and made many converts.

Of these, several desired admission into the priesthood, and as Gautama had hitherto reserved to himself the right of admitting candidates, they brought the applicants to Buddha that they might be admitted to the priesthood, and obtain Upasampadá.

The first of these, "Pabbajjá," is the retiring from secular life for religious purposes, and applies to the whole body, whether novices or ordained priests. The latter, "Upasampadá," is the state of full admission to the priesthood, being derived from the verb "upasampajjati," to attain.

Buddha, perceiving that this mode of proceeding was fatiguing both to the priests and to the candidates, determined to confer upon the priests the right of admitting candidates into the priesthood. For this purpose he called them together, and delivered the first of his precepts respecting Ordination. These are in the form of permission, commencing with "Anujānāmi" — "I permit."

Having assembled the priests, he said : —

"1. I now allow you, priests, to ordain to the priesthood and admit to Upasampadá, in any part of the provinces in which you may be. And in this manner, priests, shall ye make priests, and admit to Upasampadá. First, having caused the head and beard to be shaven and a yellow garment to be put on, make (the candidate) remove his upper garment from one shoulder, worship the feet of priests, and [*lit.*, sit on his heels] kneel down. Let him then lift up his joined hands, and say. I take refuge* in Buddha, I take refuge in Dhamma (his doctrine), I take refuge in the Sangha (the priesthood). A second time I

* Or, "I go for aid : " සරණංගමනං.

take refuge in Buddha, I take refuge in Dhamma, I take refuge in the Sangha. A third time I take refuge in Buddha, I take refuge in Dhamma, I take refuge in the Sangha. I permit, priests, admission to the priesthood and to Upasampadá by this thrice taking refuge."

Buddha, having exhorted the new priests to seek by meditation and effort the deliverance he had himself obtained, left Benáres and went to Uruwélá. During his journey he converted 50 young men who were friends, and admitted them to the priesthood; and some time after his arrival in Uruwélá, he succeeded, after performing many miracles, in converting 1000 Jaṭilas, or ascetics with clotted hair, who were worshippers of Agni, the god of fire. These being men of renown, their conversion produced a great impression.

He left Uruwélá accompanied by the 1000 Jaṭilas whom he had ordained priests, and, going first to Gáyasisan, at length arrived at Rájagaha, the metropolis of Magadha, and resided in a Chétiya (or sacred grove) near the city.

The king of Magadha, Sényo Bimbisáro, having heard of his eminence as a teacher, went to the place where Buddha was; his (the king's) retinue consisting of 120,000 Brahmins and householders. Buddha preached to this multitude, who were all, together with the Sovereign, converted to the new religion, and entered the first of the paths leading to Nirwána.

After the discourse was ended the king observed, that when he was a youth he had desired five things, and they were then accomplished. "The first," said he, "was that I might be an anointed king: this has been accomplished. The second was, May a Rahat, a supreme Buddha, appear in my dominions: this also has been accomplished. The other wishes were, May I visit that Buddha! May I hear him preach! May I understand his doctrine! The whole of these are now fulfilled. Will Bhagawá, with the priests, take their meal to-morrow at my residence." Buddha having by his silence intimated

his acceptance of the invitation, the king departed and had the necessary preparations made; and on the morrow Buddha went to the palace accompanied by the priests. The king, having with his own hand supplied him with food, continued standing until the meal was ended, when he sat down a short distance from Buddha. While thus seated, he thought: 'Where can a residence be provided for Bhagawá out of the city, but at such a distance as will be convenient for those who desire to resort to him for instruction: a retired place, free from noise and removed from the commotions and unpleasantness of the population at night?' He then selected the royal garden at Wéluwana, and determined to present it to Buddha and his priests. He accordingly took a golden vessel, and pouring water on the hands of Buddha said: "Lord, I present the garden of Wéluwana to Buddha and the priests; accept, Lord, the garden."

Upon returning from the city, Buddha convened the priests and enacted the following:

2. "I permit, priests, (the acceptance of) a garden."

The árámo or garden is an enclosure of indefinite size, with the buildings erected within it. This at Wéluwana must have been a park of considerable extent, as it was to accommodate several thousand priests. But, although by this precept permission is given to the priesthood to possess residences and the ground or (compound) in which they are situated, yet it cannot justify the holding of fields and other grounds for cultivation.

Following the relation of these circumstances, the conversion of Sáriputto and Moggalláno, who were afterwards the chief priests of Buddha, is recorded.

At that time, a Paribhájako, named Sañjayo, resided in Rájagaha attended by 250 eminent disciples, among whom were Sáriputto and Moggalláno. They were intimate friends, and had engaged that whatever excellence in doctrine the one should

ascertain, he should communicate it to the other. The priest Assaji in the morning entered Rājagaha with his bowl to collect alms. Sāriputto saw him and was struck with the sanctity of his appearance, and concluded that he must be a man of eminent piety. Determining to ascertain to what sect he belonged, who was his preceptor, and what doctrines he held, he followed him when he left the city, and entering into conversation said : “ Friend, your appearance is pleasing, your aspect placid, and your complexion clear. Under whose direction are you a priest? Who is your preceptor? And what doctrines do you hold? The priest replied : “ The Mahā Samāna of the Sākya race has become a priest, and I am under his direction. Bhagawā is my preceptor; and I hold the doctrines taught by him.” Sāriputto further enquired : “ What doctrines does that preceptor teach? What does he declare?” Assaji replied : “ Friend, I have only recently become a priest, and am not able fully to declare his doctrine, but I will give you a brief account of it.” “ Friend,” said Sāriputto, “ be it little or be it much, declare it. . Speak that which is important, and I shall understand it; speak explicitly.” Assaji then spake the following stanza:—

ಯದಿತ್ತಾ ಹೇತುಃ ಪಲಿ ತೇನ. ಹೇತು. ಶರೀರೇನ
ಘನ ತೇನಲಿ ಯಾ ಶಿರೋಮೆ ಬಂಜಾತಿ ಮಹಾಪರೇನ.

‘Whatever things result from causation, those things and their causes are declared by the Tatagato; and whatever of them may become extinct, that also the Mahā Samāna makes known.’

Sāriputto at once saw that this was the doctrine he had been endeavouring to ascertain. His mind became illuminated, and perceiving that whatever is produced must also cease to be, he entered the first of the paths leading to Nirwāna. Meeting Moggallāno, he related the circumstance, who proposed to join Buddha at once. They however determined first to converse with their associates; and these agreed to accompany them.

They advised their chief, Sañjaya, to take the same step; but he declined, and afterwards died of vexation. When Buddha saw them and their associates approaching, he said: "The two friends Kolita (Moggallāno) and Upatissa (Sāriputto) are coming. These will be my two chief disciples." (Both of them were Brahmins of eminence and were natives of Rājagaha.)

Sāriputto and Moggallāno then approached Bhagawá, and bowing their heads down to his feet, they said: "Receive us, Lord, as priests under the direction of Bhagawá, and allow us to obtain Upasampadá." Buddha replied: "Approach, priests: clearly declared is the doctrine; walk in the pure path for the entire extinction of sorrow." By these words they received Upasampadá.

At that time spiritual superiors (උපාධ්‍ය upajjhá) and preceptors (ආචාර්ය áchariyá) had not been appointed; in consequence of which many of the priests, being uninstructed, were slovenly in their dress, solicited alms in an improper manner, and were noisy and loud in their conversation. The populace were displeased at this, and loudly expressed their disapprobation. The modest and grave priests expressed their disapprobation of such conduct, and reported the circumstances to Buddha, who convened an assembly of the priests, censured the offenders, and gave the following precept:—

3. "Priests, I permit (or direct) that there shall be spiritual superiors."

He then details the relative duties of the superior (upajjháyo උපාධ්‍යාය) and his co-resident priest (saddhiwiháriko සඨවිහාරිකො). The superior is to regard his co-resident as his son, and the co-resident shall regard his superior as a father, and they are mutually to respect and honor each other. No priest can intrude himself upon another as his spiritual father or superior, but must be solicited to undertake the office by the priest wishing to become his co-resident. The applicant must

come to the priest, remove his robe from one shoulder, worship the feet of the priest (*i. e.*, bow down to the ground before him), and then, kneeling down, shall say, with joined and uplifted hands, "Lord, become my spiritual father" (or "my upajjhāyo.") If the priest applied to in any way indicates his assent, the connection is formed. The co-resident is carefully to perform his duty to his superior, which comprises all the duties of a personal attendant. He is to rise early in the morning, and respectfully to approach his superior, bringing water for him to wash, and supplying him with refreshment, if he require it; he is to arrange his couch, sweep out his apartment, assist him to dress, and, if required, accompany him when he goes out, walking respectfully behind him. The superior is to advise and instruct his co-resident, and perform to him all the duties of a parent, both in sickness and in health. The relative duties are laid down in detail by Buddha.

Some of the co-resident priests refused to perform their duty to their upajjhāyo. This being reported to Buddha, he decreed:—

4. "It is not proper, priests, that a co-resident should not perform his duty to his upajjhāyo. He who does not perform his duty is guilty of *Dukkata*" (*i. e.*, an offence requiring confession and absolution.)

They still remained disobedient, which being related to Buddha, he decreed:—

5. "I permit, priests, that the disobedient shall be suspended (from his position as co-resident). And thus shall he be placed under discipline:—The superior may declare by words or intimate by signs, 'I suspend you:' or he may say, 'Return not to this place:' or 'Take away your bowl and robes:' or, 'I have no need of your services.' Should any of these forms be used, the co-resident is suspended, but not otherwise."

A co-resident priest thus suspended did not seek recon-

ciliation. But Buddha decreed :—

6. "I direct, priests, that those who are suspended shall not be without seeking forgiveness. He who does not seek forgiveness is guilty of Dukkata."

Some upajjhāyo, upon forgiveness being solicited, refused to be reconciled. This was reported to Buddha, who decreed :—

7. "I direct, priests, that forgiveness be granted.*

Notwithstanding this direction, some of the upajjhāyo would not forgive; and the co-resident priests being discouraged, left the priesthood, or joined themselves to other religious communities. Upon this Buddha decreed :—

8. "It is not proper, priests, to refuse forgiveness when it is solicited. He who refuses to forgive is guilty of Dukkata."

Some superiors suspended the obedient, and permitted the disobedient to remain free. This being reported to Buddha, he decreed :—

9. "It is not proper, priests, to suspend those who perform their duty. He who does so is guilty of Dukkata."

10. "It is improper, priests, not to suspend those who neglect their duty. He who does not place such under suspension, is guilty of Dukkata."

On one occasion a Brahmin requested ordination, but the priests (to whom he applied) were not willing to grant his request; upon which he pined away with grief, lost his colour and became very unhappy. Buddha noticed the change in his appearance, and enquired respecting the cause. They informed him; upon which he asked, "Does any priest remember any good deed performed by this Brahmin?" Sāriputto said that he remembered a good act; for that on one occasion the

* Or : "Priests, I command to forgive," for the permission or direction is always regarded as a command when spoken by Buddha.

Brahmin directed food to be put into his bowl. Buddha praised Sāriputto for remembering a kind act, and directed him to make the Brahmin a priest. Sāriputto enquired what formula he should use in ordaining him. Upon this Buddha called a meeting of the priests, and said :—

11. “Priests, I formerly permitted Upasampadā to be given upon the three-fold repetition of the Sarāṇa. From this time I revoke this permission. I now direct Upasampadā to be given by, including the announcement (अङ्ग), a four-fold act.* And thus shall Upasampadā be given. A fluent and learned priest shall present the proposition to the Saṅgho,† and say:

“‘Hear me, my Lord the Saṅgho; such a person‡ seeks Upasampadā under such a venerable person.§ If it be a convenient time for the Saṅgho, the Saṅgho will give M. Upasampadā under N. as his superior (or upajjhāyo). This is the proposition :—

“‘Hear me, my Lord the Saṅgho. This M. seeks Upasampadā under the venerable N. The Saṅgho gives Upasampadā to M. under N. as his superior. If any venerable one consent to M. receiving Upasampadā under N. as his superior, let him remain silent. If he do not consent, let him speak. A second time I repeat the same thing :—

“‘Hear me, my Lord the Saṅgho. This M. seeks Upasampadā under the venerable N. The Saṅgho gives Upasampadā to M. under N. as his superior. If any venerable one consents to M. receiving Upasampadā under N. as his superior, let him remain silent. If he do not consent, let him speak. A third time I repeat the same :—

* That is, an announcement of the intention, and the question being put thrice to the assembly.

† A chapter of the order.

‡ For this I shall substitute “M.”

§ For this I shall substitute “N.”

“ ‘Here me, my Lord the Sangho. This M. seeks Upasampadā under the venerable N. The Sangho gives Upasampadā to M. under N. as his superior. If any venerable one consent to M. receiving Upasampadā under N. as his superior, let him remain silent. If he do not consent, let him speak.

“ ‘Upasampadā is given to M. under N. as his superior. The Sangho consents, and therefore is silent: and thus I receive it.’ ”

A priest after having received ordination acted improperly. The priest remonstrated with him, saying “Friend, act not thus; such conduct is not lawful. He replied: “I did not request you, venerable men, to give me Upasampadā. Why did you give it to me unsolicited?” They reported the case to Buddha, who decreed:

12. “It is not proper, priests, to give Upasampadā to those who do not solicit it. He who thus gives Upasampadā is guilty of Dukkata. I direct, priests, that Upasampadā be given upon a request (of the candidate). It must, priests, be requested as follows:—

“The person seeking Upasampadā must come to the Sangho, and, removing his robe from one shoulder, worship the feet of the priests; he must then kneel down, and raising his clasped hands, say: ‘My Lord the Sangho, I request Upasampadā. My Lord the Sangho, compassionate me, and raise me up.’ ”

“A fluent and learned priest shall then lay the proposal before the Sangho, and say: ‘Hear me, my Lord the Sangho,’ &c., using the formula prescribed in the foregoing precept.”

At that time many persons in Rājagaha supplied the priests with abundance of the most excellent food. A Brahmin noticing this, thought: ‘These sons of Sākya act in a becoming and virtuous manner: they eat good food, and sleep in places defended from

* The comment says, either from a state of vice, or from the lower order of a novice.

the wind. It will be advantageous, if I become one of that priesthood. He accordingly requested, and obtained ordination. At length, the supply of food brought to the monastery was diminished, and he was directed to take his bowl and collect alms: this he declined, saying, that if they gave him food, he would remain; but if not, he would leave the priesthood. "What! friend," said they; "did you become a priest for the sake of your belly?" "Truly I did," he replied. The virtuous priests, being much dissatisfied, related the circumstance to Buddha, who reproved the offender, and decreed:—

13. "I direct, priests, that those who give Upasampadā shall declare the four Nissaya (or things incumbent on a priest). 1st, The priesthood is for the purpose of living upon food collected as alms. This is that to which you are to attend as long as you live. 2nd, The priesthood is for the purpose of wearing garments made of cast-away cloth. This is that to which you are to attend so long as you live. 3rd, The priesthood is for the purpose of residing at the foot of a tree. To this you are to attend so long as you live. 4th, The priesthood is for the purpose of using as medicine the urine of horned cattle. To this you are to attend so long as you live."

This appears to have been the original rule for the priesthood, but it was soon modified; and now under each head articles are arranged, called "Extras allowed" (Atirékalābhó*). The four Nissaya, or necessities, are food, raiment, dwelling, and medicine. Under the first, in addition to food collected in the alms-bowl, the extras allowed are, food brought to the temples for the priests generally; daily food furnished by individual benefactors; food of which they are invited to partake at the houses of their disciples and others; food given on certain days, on the Póya days (the days of the changes of the moon);

and on occasional days. These extras in a great measure nullify the original rule.

Under the second, or raiment, in addition to garments made of cast-away cloth, or refuse, they are permitted to wear robes made of linen, cotton, silk, woollen cloth, hempen cloth, or apparently anything which will take a yellow colour.

Under the head of a dwelling, in addition to living at the foot of a tree, they are allowed to dwell in temples, halls square houses, terraced buildings, and caves.

Under the head of medicine, they are allowed, in addition to cows' urine, ghee, butter, oil, honey, and sugar. By these "atiréka lábho" the ascetic principle is destroyed.

From the next precept it would appear that these extras were only occasional at the commencement of the system.

A young man solicited admission to the priesthood, and they immediately informed him of the four Nissaya. He replied, "If as a priest I am to be subject to these rules, I am unwilling to enter the priesthood," and went away disgusted. They informed Buddha, who ordained—

14. "Priests, the Nissaya shall not be previously declared to the (applicant for ordination). He who declares them is guilty of Dukkata. I direct, priests, that they be declared at the time of giving Upasampadā."

At one time Upasampadā was given in assemblies where only two or three priests were present. This being reported to Buddha, he decreed :—

15. "Priests, it is not proper that Upasampadā should be given in an assembly of less than ten priests. Whoever gives Upasampadā in a smaller assembly is guilty of Dukkata. I direct, priests, that Upasampadā be given in an assembly of ten priests, or of more than ten."

At that time, some priests who had only received Upasampadā one or two years assumed the office of superior (upajjhāya), and

received co-resident priests. This being perceived by Buddha, he decreed:—

16. “It is not proper, priests, that any one of less than ten years’ standing shall give Upasampadā. He who does so is guilty of Dukkata. I direct, priests, Upasampadā to be given by those who are of ten years’ standing, or of more than ten years.”

There were priests of more than ten years’ standing, who where neither eloquent nor learned; and when they became superiors, it sometimes happened that the subordinate was more learned than his spiritual father; and from this many evils arose. This being represented to Buddha, he decreed:—

17. “Priests, it is not proper that one who is incompetent and unlearned should give Upasampadā: he who does so is guilty of Dukkata; I direct that Upasampadā shall be given by priests competent and learned, who are of ten or more years’ standing.”

Afterwards, as many of the superiors had removed to other places, or had left the priesthood, or had died, great disorders prevailed among the priests, some of whom became slovenly and irregular in their habits. To remedy this Buddha decreed:—

18. “I direct, priests, that there be preceptors.”

The áchariyo or teacher stood in the same relationship to the antéwásiko or pupil, that the superior stood in to his co-resident priest. The rules belonging to preceptor and pupil are precisely the same as those respecting superior and co-resident; and it is not necessary here to repeat them. The receiving a pupil is called “to give (Nissaya or) proximity,” as the pupil was to reside with his teacher, unless his presence was required by his upajjháyo or superior.

(To be continued.)

STATISTICAL ACCOUNT OF THE DISTRICT OF CHILAW AND PUTTALAM, NORTH- WESTERN PROVINCE.

BY A. O. BRODIE, Esq.

THE District of Chilaw and Puttalam forms the maritime portion of the North-Western Province, and is bounded by the Northern Province, Seven Kóralés, Western Province, and the sea. Its length from North to South is about eighty miles, and its breadth is irregular, but averages probably sixteen or somewhat less.

The general appearance is flat, especially along the coasts : towards the interior, low undulating ridges and a few isolated granite groups are observed. The whole surface, except where salt-water marshes occur, or cultivation has been established, is covered with dense jungles containing valuable timber trees.

Divisions.

The District is not *physically* divided in any way, with this exception, that from Kalpitiya to Mádampe (about fifty miles) there runs a narrow, low, sandy peninsula, the northern portion of which is termed Akkaraippattu, and which is separated from the mainland by the gulf of Kalpitiya, Quiparawa canal, and Kadupiti-oya, successively. From its northern extremity, a narrow chain of islands runs towards Mannár and has doubtless, in a previous age, formed a continuation of the peninsula. For *financial* purposes, however, the District is divided into the following sections :—

- (1.) Puttalam district.
- (2.) Chilaw District, Northern division.
- (3.) Chilaw District, Southern Division.

(1.) The first of these is sub-divided into six pattús (Puttalam, Kalpitiya, Akkarai, Pomparippu, Kumárawanni, and Rajawanni pattús).

(2.) The second into twelve (A'nawulundáwa and Munnas-sarama pattus of Demala-pattu, Chilaw, Demala, Munnas-sarama, and A'nawulundáwa Pattus of Chilaw-pattu; Kumárawanni, Pandita, Pérawili, Karambé, Rájawanni, and Kirimētiyá Pattús).

(3.) The last into four: namely, Yágam, Mēda Paláta, O'tara Paláta, and Kamala Pattu.

Population.

The entire population, as obtained from the official returns of last year, is 38,370.

It would appear from statements now before me, that the number of males exceeds that of females by about eight per cent. That this difference really exists is improbable; the mistake is caused in part by those feelings, which have hitherto made it all but impossible to obtain correct statistical returns in Ceylon, (namely, a dread that every census is the prelude to increased taxation, and a superstitious dislike to any numbering of the people); and in part, because females are regarded in so degraded a light, that if care be not taken, they are on such occasions altogether omitted. The excellent Ordinance concerning statute labour, which is soon to come into force, will, among other advantages, also have this—that it will much facilitate the drawing up of correct population returns.

Rivers.

There are no navigable rivers in the District. The most important are the Kalá-oya, Dēduru-oya, and Kadúpiṭi-oya. Of these, the two latter are the only ones which are not entirely dry during several months of each year; but even this pre-eminence is, I think, due to their channels being so horizontal and so low for some miles above their embouchures, that the water of the sea penetrates far inland. During the dry season there is consequently little or no current.

The Kadúpiṭi-oya, from Mádam pé to about two miles

north of Chilaw, at all times contains sea-water, and forms a portion of the Colombo-Puttalam canal. Immediately at Mádampé an embankment is thrown across the stream for the purpose of filling a large tank belonging to the village.

All the above rivers, taking their rise among the Kurunégala hills far to the east, are liable to sudden floods, even at times when the country through which a great portion of their course runs, is parched by lengthened droughts. On such occasions, the channels fill up with almost inconceivable rapidity, and the stream which might be crossed almost dry, becomes, in the course of an hour or two, a wide, deep, swift torrent. It is from this circumstance, that the Dēduru-oya is termed by the Tamils the Mayawan-āru, "sudden river."

Lakes.

There is no natural *fresh-water* lake; but owing to the extensive cultivation of paddy, numberless tanks or reservoirs, some of them several miles in circumference, are scattered over the country.

The only *salt-water* lakes are those at which are situated the salt-pans of Puttalam, Natchchikalli, Karativú, Tilléadi, Udaippankarai, &c.; and those which form part of the canal from Chilaw to Puttalam. The Gulf of Kalpiṭiya, which is about eighteen miles long, and from two to six broad, may, from its land-locked position and its shallowness, be regarded as a lake; in fact, such is its usual designation among the European descendants.

Harbours.

There is only one harbour in the District, namely, Kalpiṭiya. It is situated near the opening of the gulf to which it gives the name. The channel to sea-ward is unfortunately tortuous and shallow; small native craft can therefore alone avail themselves of it. About four or five miles to the north of the towu there is, however, a spacious bay, which can be

entered by vessels of considerable burden, and in which, I understand, they can always ride with tolerable safety. It is locally known under the name of Dutch Bay. Were a good road formed from it to Kalpitiya, it would, I have no doubt, give a considerable impulse to trade, by relieving merchants from the risk and expense of removing their cargoes to the mainland in small boats or canoes.

The whole of the remaining portion of the sea-coast, either in consequence of shoals or from the violence of the constant surf, is inaccessible; and owing to the existence of bars, which run across the mouths of the Deduru-oya and Chilaw rivers, coasting vessels are prevented from making an entrance there.

Water Communication.

There is only one *canal* in the District, that which connects Kalpitiya with Colombo. It was originally projected and partially opened by the Dutch, but was only brought into an efficient state about twenty years ago. By means of it a great portion of the trade of the District is carried on; boats from the Southern Province coming up either empty, or with small cargoes of furniture, betel leaves, jack fruits, &c., and taking away salt, copperah, paddy, &c., to Negombo and Colombo. It is very much to be regretted that of late this canal has again fallen into bad order, and during several months of each year is laid quite dry at various points.

That such should at any future period be the case, is, however, not at all probable; and it may therefore be confidently expected that the trade of the District will rapidly and steadily increase.

Land Communication.

There are only three high *roads* in the District, all of which centre at Puttalam; they lead respectively to Colombo, Kurunegala, and Anurádhapura.

The first is at present in a state of tolerable repair, and is

everywhere passable for vehicles, the requisite bridges having been constructed. It is not a road of much importance, as all heavy and bulky goods to be conveyed in its direction are, of course, taken by water.

The second has of late years received considerable attention; bridges have been made, embankments thrown up, &c. There is a great and rapidly increasing traffic along it; many thousand pounds' worth of salt being annually taken up it to the interior.

The third has as yet been only partially opened, and is not available for carts. Large quantities of cotton, paddy, &c., are, however, brought down by it to the coasts, and the natives living on the borders of this and the Northern Province inform me that they derive much advantage from it, even in its present imperfect state.

Climate.

The climate of the District in its general features resembles that of other parts of the Island similarly situated. For further details I am unable to refer to any paper except that which I had lately the honor to submit to the Society, and deem it unnecessary to state more than merely that, from observations continued for one year (from 1st August, 1847, to 31st July, 1848) and registered at 9 A.M., at noon, and at 3 P.M., it appears that:—

The highest temperature remarked was	...	91.25 Fahr.
The lowest	... ..	72.00
The highest mean of any month was in March		85.796
The lowest do. do. in December		78.229
Average temperature at 9 A.M.	...	80.142
Do. do. noon	...	82.735
Do. do. 3 P.M.	...	82.675
General mean temperature at Puttalam	...	79.718
Extreme range between 9 A.M. and 3 P.M.		19.25
That the South-West wind occurred on	...	205 days.
Do. North-East	... ..	73

That the number of calm days was	...	34
Do. do. rainy days ...	...	112
Do. do. days with thunder	...	98
Thunderstorms at Puttalam ...	...	21

Health.

All that part of the District which is freely exposed to the influence of the sea-breeze is on the whole healthy, but towards the interior, where lofty forests check all circulation of air, and where extensive swamps and neglected tanks give rise to noxious miasma, the people are much subject to fever, lingering ulcers, and various cutaneous diseases. During the prevalence of the N.E. Monsoon, the wind traverses the pestilential marshes just mentioned before reaching the maritime parts, and gives rise to sickness there.

Cholera occasionally visits the District, but seems to occur only in September and October—that is, immediately preceding the commencement of the rain. It is at least possible, that the drinking of water from the small pools loaded with decaying vegetable and animal matter may, in some way, be connected with the occurrence of this disease. It is a common—and apparently correct—remark, that any decided change of weather causes a cessation of the disease.

In stating that the maritime pattus are healthy, I ought to have excepted the village of Kalpitiya, in which the number of deaths, especially among the females, is truly lamentable. This state of things has; so far as I can learn, only existed since the town has been surrounded with numerous cocoanut topes, which, in combination with narrow winding lanes, effectually prevent ventilation, and would very probably be in a great measure removed, if one or more straight roads were cut running East and West from the sea to the gulf.

Regarding the quantity of rain, moisture in the atmosphere, &c., no observations have, so far as I am aware, been made.

The natives unanimously concur in stating, that at one time the jungle pattus were much more healthy than at present, and account for the change by the existence of numerous tanks, then used for irrigation, but now neglected.

Geology.

The geology of the District presents little that is attractive, except indeed to those who turn their attention to the minuter variations in the older rocks.

All along the sea-coast there are a series of horizontal beds of sandstone, belonging in all probability to the present formation, and never elevated more than a very few feet above the present water level. The rock itself varies in structure, and contains numerous enclosed shells and coral lines, apparently identical with species existing in the neighbouring ocean. The shells in many cases retain the enamel, and are in all respects as perfect as if they had just been washed into the beach.

At Kárativu, fourteen miles to the North of Puttalam, there are various strata of calcareous rock, some friable as marl, some highly indurated. These also undoubtedly belong to the present formation.

The soil of the maritime parts is in general sandy, but interspersed with rich alluvial earth, potters' clay, and fresh water marl of recent origin. Towards the interior, where the isolated granite rocks previously mentioned appear, large deposits of cabook gravel are met with.

That changes in the relative positions of sea and land have occurred here within the historic period, seems to be proved by the existence of a tradition to the effect, that in the time of the famed Queen Alliarasáni, the Gulf of Kalpitiya had no opening to the Northward, but communicated with the sea by a channel running in the line of the present Chilaw Canal; that the Queen abovenamed used to proceed from Kudiremalai to the Akkaraip-pattu by land; and that a great flood came, buried

her palace under the waves, and, bursting through a neck of land, converted the lake into a gulf, which form it still retains.

Mineralogy.

No gems have been found in this District ; and the only ore which I have heard of is the bog iron ore, procured in considerable quantities, a few miles to the south of Chilaw, and smelted by the natives, who have, it appears, observed its reproduction.

Nitre used at one time to be procured from various caves. One of these I visited, and have reason to believe that the salt was not formed naturally, but was obtained artificially from the dung of countless bats which have their abode in the grotto.

Salt is procured in large quantities by evaporation of seawater, and indeed forms the chief source of public revenue. The greater portion of it is obtained by means of artificial pans ; a few hundred bushels are, however, occasionally spontaneously formed near Kalpitiya, during the dry season.

At Uppukulam, fifteen miles N. W. of Puttalam, the natives affirm that a very bitter kind of salt (Epsom?) is to be procured. I have not, however, had any opportunity of verifying the statement.

Springs.

No medical or thermal springs are known.

Soil, Agriculture, &c.

As previously mentioned, a great portion of the soil in the maritime districts is a silicious sand, more or less mixed with comminuted shells. Where granite rocks exist, a reddish loam takes the place of the sand ; and on the margin of rivers and lakes a rich black mould, well adapted for the cultivation of paddy, is to be met with. In some places a retentive clay exists and is used in the manufacture of bricks, &c.

The two staple vegetable products of the District are coconuts and paddy.

All the country lying along the sea-coast is occupied by topes of cocoanut trees, which flourish in a soil consisting apparently of pure sand. The finest plantations which I have seen are at Mádampe, on the site of the former pepper gardens; but the whole eastern side of the Akkaraip-pattu yields good crops, which the natives attribute in part to the existence of thin sandstone beds a few feet under the surface of the ground. Below these strata there is water, and it appears that this, by capillary attraction, rises through the stone, thus keeping the roots damp, and at the same time preventing them from being constantly immersed in stagnant water.

The tree seems to flourish best in the immediate vicinity of the sea, and I have frequently seen it growing well with its roots partially immersed in salt water. Owing apparently to the porousness of the soil, an elevation of a few feet is found to act nearly as prejudicially as a removal to a distance of several miles from the coast. The benefits which the cocoanut tree bestows on the natives are so well known that it is unnecessary to particularize them. The oil which is in such general use is usually obtained by expression, one end of a bent lever being inserted into a large mortar-shaped vessel so as to rub against the inner surface, while the other is attached to the draught cattle. The cake which is left is called *poonac*; it contains a large quantity of oil, and is used for fattening poultry, cattle, &c.

There are about 950,000 cocoanut trees in the District; and as about 80 are generally placed on an acre, it would appear that about 12,000 acres are devoted to this plant, each acre being worth a rent of from 20s. to 60s. Each tree yields from 25 to 70 nuts, though some occasionally are found to give a crop six or eight times greater than this; but in those cases the nuts are generally small.

From 1,000 to 1,500 nuts yield on an average a bar of *copperah* (the dried kernel), and this yields about 140 seers

or 320 lbs. of oil. The average price of copperah is from 22s. to 30s. and above, per bar; that of *oil* $2\frac{1}{2}d.$ to $3\frac{3}{4}d.$ per bottle; and that of *poonac* about $\frac{3}{5}d.$ per lb., and from 8s. 9d. to 11s. 8d. per bar. One bar of copperah yields about 210 lbs. of *poonac*.

There are, besides those already enumerated, certain other products of the cocoanut tree, which add to the profits of the planter. Thus, the leaves split lengthways and then woven together by means of the leaflets, form what are called *cadjans*, of which 100 sell for 1s. 6d. or 2s.; or if the *cadjans* be woven into a sort of continuous sheet or mat, called a *karisapku* (twelve *cadjans* making from four to six *karisapkus*), a hundred of these are worth 4s. or 4s. 6d. Again, 250 to 300 nuts give 1,000 fathoms of *coir* rope, worth about 2s. 6d. In fact, the uses of this tree are endless.

As might be expected, the prices of the various products obtained from the cocoanut tree vary extremely in different parts of the District. To prevent misunderstanding, I give separately the usual prices at Kalpitiya in the north, and Mádampe in the south. At both places the tree flourishes and is cultivated to a great extent.

At Kalpitiya the cocoanuts are worth about £1. 10s. per 1,000. *Poonac* from 8s. 9d. to 11s. 8d. per bar (onequarter of a ton). Copperah, £1. 1s. to £2. 3s. per bar. Oil $5d.$ to $5\frac{1}{4}d.$ per seer.

About 300,000 cocoanuts are annually exported from Kalpitiya, almost the whole quantity going to the Continent of India; a few thousands besides are sent over in the husk for planting. From the same port 1,000 bars of copperah go to Colombo, 100 to the Northern Province, and 2,000 to the Coast; the last-mentioned paying an export duty of $2\frac{1}{2}$ per cent. A small quantity of oil is sent to Jaffna, and occasionally a little to the Coast. Return dhonies take about 50,000 *cadjans* to India annually; these pay a duty of $2\frac{1}{2}$ per cent., and are worth

at Kalpitiya from 1s. 6d. to 2s. per 100, but at the places where they are made not more than from 7½d. to 9d. per 100.

At Mádampe, on the other hand, copperah is worth from £1. 2s. 6d. to £2. 5s. per bar; poonac, ¾d. per lb., and oil from 2½d. to 3¾d. per bottle. About 10,000 or 12,000 bars of copperah are annually taken to Colombo for sale.

I ought perhaps to add, that the tree is generally at first grown in nurseries, and that it will bear transplanting at a considerable age.

It is greatly to be regretted that the upset Government price for land is as high here as in districts of which the capabilities have already been ascertained. Capitalists are unwilling to give the price demanded, knowing, as they do, that natives are in the habit of selling equally good land at rates a half or a third lower: and, on the other hand, they are deterred from buying the ground from natives, partly on account of the difficulty which they would experience in purchasing large continuous tracts, and partly from a dread lest their title to the land might at a future period be disputed by Government, which would most probably occur in numerous cases.

The native mill, being a very imperfect apparatus, large quantities of copperah are annually sent out of the District, chiefly to Colombo. It is much to be desired that the oil itself should alone be transported; and this cannot be expected until some better kind of mill has been introduced. Many years ago an Englishman began to construct such an apparatus at Kalpitiya; it was made on the plan adopted in Europe, where a heavy vertical wheel is forced to move in a circular path over the substance to be crushed.

The cultivation of the cocoanut is extending very rapidly, and, as the District affords every facility for water traffic, it may be presumed that the number of topes will be increased year after year.

The farming system adopted with regard to this plant is

that customary in many parts of the East. The land-owner places on the grounds one or more peasant families, who take charge of the plants until they are in full bearing—that is, for from four to eight years—at the end of which time the tenant receives one-half of the trees as his hire. This gives him, however, no claim to the land itself. Occasionally, instead of making this division, the proprietor dismisses the cultivator, after paying him at the rate of a shilling, or a dollar, for each tree. It is almost unnecessary to add, that during the first three or four years the plants must be watered daily in dry weather.

I know of no more legitimate source of public revenue than a small tax on fruit-bearing cocoanut trees. Whenever this has been proposed, the natives have made a great outcry; but it is quite notorious, and is indeed freely acknowledged by themselves, that no sooner is a man in possession of a small cocoanut tope, than he is independent for the rest of his life; he has absolutely nothing to do but to pluck the fruit, eat one portion, and sell the remainder. The paddy cultivator has to labour during several months to obtain one crop, and even this he may lose from unfavourable weather;—he is taxed. On the contrary, the cocoanut cultivator has merely to water his trees for two or three years, and then he may safely reckon on a continuous crop for forty or fifty years, and this without any further labour on his part;—he is not taxed.

In the interior, where the cocoanut does not thrive so well as along the coast, the natives turn their attention to the cultivation of various grains—in an especial manner to that of paddy. Of this plant, a great many varieties are known, which however, so far as this District is concerned, may be divided into two great classes, according to whether they ripen in four or in three months. The former being sown from July to December, yields the *Maha* harvest (මහාභවන) in January, February, and March. The latter, placed in the ground between

April and July, ripens in August or September, giving the *Yala* harvest (යල තෙවසම). Those kinds of paddy known as *Má-vi* (මාවි), *Ilankalaiyan* (இலங்கலையன்), *Hunaramála* (හුනරමාල) are only sown for the *Maha* harvest. Most, if not all of the rest, may be used for either crop.

The natives here, as elsewhere, make their tanks too shallow, the embankments unequal in height throughout, and the partition mounds too numerous. To shew the evil effects of these mistakes, and the best means by which they are to be obviated, would require more room than can be allowed in this sketch.

The farm system is that which has been the curse of India from time immemorial; and it prevails, I believe, in every part of the Island. It is liable to slight modifications, but its general features may be thus described.

No landed proprietor farms his own ground. Twice annually he comes to an agreement with a number of peasants, each of whom takes charge of the field allotted to him for that one crop.* When the grain has been threshed and the Government share deducted, the remainder is divided into four equal shares, thus:—

Proprietor ; Cattle ; Seed-corn ; Cultivator.

In general, the landlord provides the cattle and seed-corn, the peasant feeding the former as long as they are employed on the ground.

In most cases no particular arrangement is made regarding the straw. Any one who pleases may take it. In fact, owing to the bad system pursued in reaping, one-half or more of it is left in the field as stubble.

Unless either the large proprietors can be induced to farm their own lands, or the natives can be induced to combine to some extent in all objects for the mutual benefit of the inhabitants

* Of course it frequently happens that a peasant cultivates the same field during several successive years.

of each village, and until leases for lengthened periods are adopted, the peasant has no encouragement in endeavouring to improve his farm, and it is utterly hopeless to expect any great improvement in this branch of agriculture.

Such then are some of those circumstances which tend to act injuriously on agriculture. There still remains to be noticed the train of evils arising from the manner in which the grain tax is levied, a system which, however defective it may be, cannot be easily dispensed with. This subject is, however, one of too great importance to be treated of in this abstract.

Much land being so situated that it cannot be irrigated, is reserved for the cultivation of what are called “fine grains,” such as *kurakkan*, *menéri*, *sesamum*, &c.

The system pursued is most destructive; the same piece of ground being sown only once in five, ten, or fifteen years, and the land allowed to become covered with wood in the intervals. The ashes of this brushwood form the only manure employed. The natural effects of a plan by which each peasant must possess a number of separate patches of land, each large enough to give him a sufficient crop for one year, are abundantly evident. I have often travelled for days together through nothing but chena land—so the clearings are termed—without seeing more than a very few trees of any value as timber.

Nothing but the introduction of the use of manures can check the inherent evils of the system.

These plants then—the cocoanut, paddy, and fine grains—employ the greater portion of the agricultural population; others are however cultivated, and of the more important I shall give short notices.

Tobacco is to be met with all over the District; but more attention is paid to it at and to the south of Chilaw than elsewhere.

The system of cultivation is as follows. The ground during from six to twelve months is manured by railing off successively small portions of the field and using those as cattle

folds. There are two seasons for sowing tobacco: that for the Mahá harvest is sown in December and January, and cut in March and April; that for the Yala harvest is sown in June and July, and cut in September. Throughout the greater portion of the District the Maha harvest alone is looked to. In the extreme south the Yala is that to which sole attention is directed. Two months after sowing, the young plants, which have then four or five leaves each, are removed from the nursery and planted in rows three feet apart. At intervals during three or four months the leaves are successively stripped off, dried partly in the sun and partly in sheds, and ultimately piled up in a small close room where they heat considerably. About ten leaves are obtained from each plant; these are worth from $2\frac{1}{2}d.$ to $4d.$, the cost of cultivation being about $1\frac{1}{2}d.$ The large profit thus shown is, however, rather nominal than real, as lengthened droughts frequently ruin the crops; heavy rain occurring before the leaves are ripe proves equally injurious. The price of the leaves varies extremely; the worst are not worth more than a few shillings per thousand, the very best not less than £6, and sometimes even £7 10s.; for the same quantity. Those which bring this latter price are large, thick, viscous, and both taste and smell very strong. The method adopted in drying the produce and in manufacturing it is extremely defective.

If the land be rented out, the crop is divided thus:—Landowner, Peasant, Cattle—equal shares.

The *Palmyra* palm (*Borassus flabelliformis*, Linn.) is found in all the maritime portions of the District, but is not much prized. It is chiefly used for the purpose of obtaining from it *toddy* and *jaggery*. The wood of old trees answers admirably for rafters; the kernels are cool and pleasant; and from the expressed juice of the husk surrounding the nut a kind of paste called Punattoo is made. In the Northern parts of the Island this substance forms an important article of food.

The *Kitul* (*Caryota urens*, Linn.) grows freely towards the interior, but is not much cultivated; the jaggery obtained from it is considered superior to all others.

The *Talipot* (*Corypha umbraculifera*, Linn.) is all but unknown.

The *Areka* palm (*Areca catechu*, Linn.) is very extensively cultivated in the southern part of the District. It begins to bear about six years after being planted, and produces, on an average, 100 nuts annually; these are worth on the spot from $2\frac{1}{4}d.$ to $4\frac{1}{2}d.$ per hundred. The tree is short-lived, generally shewing signs of decay after twenty years or so. During the supremacy of the Portuguese and Dutch the natives at Puttalam were in the habit of paying their taxes in "betel nuts"; these must, however, have been procured from other Districts, as it is found that the tree does not thrive anywhere near the village. The plants shoot up rapidly during the first few years, but then die away suddenly. The present produce is unequal to the demand; large quantities are consequently brought from the southern parts of the Island, where the soil is better adapted to the plant.

Plantains (*Musa sapientum*, Linn.) grow abundantly everywhere, but little attention is paid to the selection of good varieties.

The *Betel creeper* (Sinh. *bulatveta*, බුලත්විත) is found in every village, but only towards the south are large gardens given up to this plant.

Pepper was at one time cultivated to a great extent near Mádampe, but is now totally neglected, the natives believing that if ground be devoted to it alone, the expenses of the cultivation would not be covered, and that, if allowed to clamber round cocoanut trees, these would be destroyed.

Coffee grows freely and the fruit is collected by the natives, but it is of course of little or no value.

Cinnamon is found abundantly about eight miles to the

south of Puttalam, and also in other parts of the District; the bark used to be collected during the existence of the Government monopoly, and the villagers still gather small quantities of it.

The *Bread fruit* (*Artocarpus incisa*, Linn.) and *Jack* (*Artocarpus integrifolia*, Linn.) are much cultivated towards the south; the former grows well at Kalpitiya.

The *Sapan wood* (*Cæsalpina Sappan*, Linn.—Sip. *patangi*, පතංග) grows in the District, but I am not aware that it is collected for sale.

In some parts of the District *Hemp* (Ceylon—Sip. *hana*, හන, *Crotalaria juncea*, Linn.) is raised in considerable quantities; but the absence of pure running streams is a great obstacle in the way of the cultivator; it is chiefly employed by fishermen.

Formerly, when the collection of *cheya* (*Oldenlandia umbellata*, Linn.,—Sip. *sáyan mula*) was a Government monopoly, large quantities used to be obtained from the sandy downs which gird the coast; that growing in the neighbourhood of Kalpitiya was considered to be of the best quality. A peculiar caste of people employ themselves to a considerable extent in digging up and drying the root, which yields a very brilliant, and I believe permanent red dye. About ten or fifteen tons of this article are exported annually to the Continent of India.

It may be proper to mention that at Kalpitiya considerable quantities of a kind of seaweed are dried and sent to different parts of the Island, where it is usually termed *Jaffna moss*. *Gracillaria lichenoides*, Grev.

The process of preparation consists simply in washing it in fresh water and drying it several times in succession; when boiled and allowed to cool, it forms a transparent, nearly tasteless, but, I am told, nourishing jelly. The preparation of the plant was first commenced in 1806, at which time the usual

price was 9*d.* per lb.; it has now however fallen to 1½*d.*, but the process is less carefully conducted than formerly.

The fruits and vegetables are the same as in other parts of the low-country; but no attention whatever being paid to their cultivation, the produce of the majority is poor and insipid. English vegetables have at various times been planted; but *lettuces*, *radishes*, and some kinds of *bean* are the only ones which appear capable of accommodating themselves to the climate.

Cotton grows wild over the whole District, and the product used to be collected in large quantities. Cloth from English looms has, however, to a great extent, driven the native manufacturer out of the market.

Timber.

The whole face of the District, with the exception of a narrow strip along the sea-coast, being covered with wood, a considerable variety of timber trees is to be met with.

The commonest of these are the following:—

English.	Sinhalese.	Classical.
Ebony ...	Kaluwara, කළුඹර	... Diospyros Ebenum, Retz.
Satinwood ...	Buruta, බුරුත	... Chloroxylon Swietenia, D.C.
—	Milla, මිල්ල	... Vitex altissima, Linn.
—	Halmilla, හල්මිල්ල	... Berryâ Ammonilla, Rox.
Ironwood* ...	Palu, පළු	... Mimusops Indica, D.C.
—	Godapara, ගොඩපර	... Dillenia retusa, Thun.
—	Hora, හොර	... Diptercarpus Zeylanicus, Thw.
Jack ...	Kos, කොස්	... Artocarpus integrifolia, Linn.
Teak ...	Tékka, ටෙක්ක	... Tectona grandis, Linn.

Of these, Jack is never found growing spontaneously, and of the Teak there are unfortunately but few specimens left, all the plantations of this tree formed in the southern part of the

* The true ironwood tree is *Messua ferrea*, L. (Sig. *nágaha*, කාකක.)

District having been cut down without any provision being made for a future supply. Some young plants were, however, brought up to Puttalam about a year ago, and have hitherto grown well.

From some of the indigenous trees various gums and resins, valuable in the Arts and in Medicine, are obtained.

Fisheries.

As might be presumed, a large number of persons are engaged in catching and in curing fish. For the former purpose various plans are adopted. The passing cooly or lazy villager obtains a savoury addition to his evening meal by cutting off and gradually emptying small portions of half-dried-up tanks; while others attain the same end by pursuing shoals of fish along shallow channels, and suddenly dropping over them conical-shaped baskets. The quantity of fish caught in this way would appear extraordinary to those who have not had opportunities of observing that every collection of water, however small, swarms with life. Those whose means are greater, make use of drag nets managed by two persons, which are used either in still water or else in the surf which beats against, and at short intervals surmounts, the shelves of rocks which line the coast.

To catch large fish, hooks and lines, deep sea nets, and stake nets are employed. The latter are ingeniously constructed of saplings tied side by side, leaving interstices of half an inch or more. A fence of these is run out from the shore, and terminates in a series of arrow-headed chambers. It is in these kraals that the majority of the turtle obtained here are caught. Another plan, in constant use among the natives, is to run a fence of saplings or nets from each side of a river, leaving only a small channel in the centre; in this channel they place either a long bag net, or else a series of baskets formed on the principle of a mouse trap, the fish entering with ease but being unable to effect their escape. Shrimp

fishers make use of a fine net worked in such a manner as to form a lengthened funnel-shaped figure, to the large circle forming the aperture of which small lead weights are attached. The net is carried folded over the left arm; a rotatory motion is given to the weighted end, which is ultimately propelled to a considerable distance, and in such a manner as to fall on the water expanded and with the opening downwards; the lead weights immediately sink to the bottom and enclose within the circle the fish which happen to be on the spot.

Large quantities of fish are dried, salted, and despatched to the interior; the process is, however, carried out in the most imperfect manner, and the product, consequently, in many cases utterly unfit for consumption, is without doubt a frequent cause of illness among those who partake of it.

Since the tax upon fish was removed, the trade in this article has very much diminished, and the boatmen are most anxious that the duty should again be levied. This may appear paradoxical, but I speak positively; all the chief fishers here having on one occasion expressed their opinions in my presence, and this under circumstances which makes me feel confident that such is the real state of feeling among them.

The anomaly is easy of explanation. When the fish tax was farmed out, it was of course the interest of the renters that as much activity as possible should be displayed. They accordingly made advances to the poorer boatmen, caused their canoes and nets to be repaired, and in return constantly urged them to assiduity. The renter thus secured himself from loss, and the fisher, besides receiving an advance when in distress, found that he had by his industry secured for himself a larger sum than hitherto. In fact, the wish for the tax is merely a modified acknowledgment of the advantages of capital. The people are too wanting in enterprise and too divided among themselves to unite for any useful purpose, and although aware of the advantages of industry, have not energy

enough to act upon this conviction without the constant admonitions of headmen. Like all Asiatics, they become utterly helpless if unprovided with chiefs.

Domestic Animals.

Of the domestic animals, no breed is, so far as I am aware, peculiar to the District. Large quantities of cattle are annually brought over from the Coast, and are bought up to be employed for the ploughing of paddy fields as draught or as pack cattle. There appear to be several breeds, but no trouble is taken in preserving or improving any. The largest and handsomest are not considered so profitable as those of moderate size, but on this subject the natives appear to be gradually altering their opinion. Buffaloes in large numbers stray over the plains and through the jungles of the District; they are sluggish animals, are possessed of more physical strength than the common cattle, but are slow-paced and soon sicken and die if they have not frequent opportunities of immersing themselves in water. They are used in farming, and are also commonly employed in carts, a practice which, I believe, is not general throughout the Island. Sheep and goats of several breeds are found in considerable numbers all along the coast. Towards the interior the natives entertain some prejudice against the rearing of them; and indeed, owing to the habits of these animals, it would be troublesome keeping them in a District covered with forest and abounding in leopards.

Of the larger cattle, it may, I think, with safety be said that, like guns, one-half at least are purchased, not from an expectation that they will yield any direct profit to the owner, but simply as a means of investing money; thus they frequently form portions of the marriage gifts among the natives; and till the present high rate of interest ceases, and the people understand to some extent the principles of banking, and feel confidence in these establishments, the system will doubtless

continue. It is only on very rare occasions that cattle are killed for food; the hides are invariably thrown away; and, in short, in a District abounding in pasture land, dairies, are unknown, milk and butter are rarities, and scarcely any benefit is derived from the existence of cows, buffaloes, or sheep. A large proportion of the natives along the coast being Muhammadans, pigs are only to be met with in two or three of the larger villages. An English breed has lately been introduced, thrives well, and is being gradually disseminated.

During the last few years the amount of stock has been very greatly diminished by murrain; in many places three-fourths of the animals have died. It is highly desirable that the natives should receive some simple instructions as to the method of treatment in such cases; hitherto charms alone have been applied, and the consequent loss to the country has been very great indeed.

Wild Animals.

It is only within a recent period that attention has, so far as I am aware, been paid to the zoology of the District. I am therefore not prepared to enter into any details at present. So far as the better known and large animals are concerned, this may be mentioned:—

Elephants are abundant everywhere, and cause considerable injury to the cultivated lands. Accidents to human beings are however extremely rare. The jungle *bear* and the two species of *leopard* (commonly but falsely termed by Europeans, chetah or tiger) are common; the black variety is occasionally met with. *Wild hogs* are abundant, and frequently commit great ravages in young cocoanut and plantain gardens, as do the *porcupines*. Herds of *deer* are to be seen grazing in the plains or trooping through the forest glades; there are four species, if the musk deer be included. *Juchals* abound everywhere; the

natives say that there are two distinct species, one large and red, the other smaller and dark, but I have not been able to verify this. Two varieties of the *mongoose* are to be seen in every piece of open jungle; they prove destructive to poultry, as do wild-cats and civets. The *manis*, or seal ant-eater, I have met with on several occasions. It is used as food. The rivers and tanks abound with *crocodiles*, of which there appear to be two species, one attaining a length of eighteen or twenty feet, and formidable to men and cattle, the other seldom exceeding eight or ten feet, and perfectly harmless when uninjured. Both are naturally timid and fear the face of man. Numerous species of smaller lizards are found. That commonly known under the name of *iguana* is used as food, and its skin is converted into shoes. It is hunted with dogs trained for that purpose.

The forests contain numerous and beautiful birds and insects, many yet undescribed; but of these, for reasons already given, it would be premature to say anything at present.

It may be mentioned here that at Kalpitiya (or Calpentyne as it is often written) a considerable quantity of *bêche-de-mer* is annually prepared and sent to Jaffna for exportation to the Malay Peninsula and China. It consists simply of the dried bodies of a species of *Holothuria* (sea cucumber), which is found in large quantities along the oozy shores of the Gulf. They are picked up at ebb tide. When taken into the hand the muscular contraction of the thick leathery integument is so strong, that a great portion of the viscera is frequently forcibly protruded. If this does not occur, the animals are opened, and, after embowelling, boiled for a couple of hours till quite soft, and then dried on the beach if the weather is favourable; under other circumstances, in close huts by means of fires. The price on the spot is about 3s. 9d. per 1000, and this quantity can easily be collected by two men during one ebb tide.

Pearl and Chank Fisheries.

Pearl banks exist along the coast from Chilaw to Kárativu Island, but many years have elapsed since they were fished.

Chanks are still in considerable demand; they are exported to the continent, where they are sawn up and converted into beads, bracelets, and other ornaments. As a branch of revenue this has, however, almost entirely ceased to exist.

History and Inhabitants.

An attempt to write a connected history of any small portion of a country is almost absurd; its own peculiar politics are trivial, and matters of greater interest at once merge into the general history of the land.

The only historical circumstance attaching much interest to the District is the erection within it of the first Capital of Ceylon.

From the Maháwanso (Turnour's translation, p. 47 *et seq.*) and Upham's Sacred and Historical Books of Ceylon (p. 27 *et seq.*) we learn, that on the very day that the last Buddha expired, Prince Wijaya, grandson of the lion, having by his dissolute conduct been driven from his home on the continent, landed at some part of the coast near Puttajam; that after proceeding a few miles towards the interior and overcoming a female demon, named Kuwéni, who had enchanted and thrown into a dark cavern his seven hundred followers, he built a palace to ratify a covenant which he had made with the sorceress. Around this palace the first Capital of Ceylon was built, and received the name of Tambapanni, or Tammanná Adawiya, or Tammanná Nuwara, from the red earth found there having stained the hands of Wijaya's followers, who, overcome by sea-sickness and faintness, had thrown themselves on the ground to recruit their strength. The place is well-known here under the name of Tammanná Adawiya; it lies about six or eight miles to the east of Puttajam, and was described by

Mr. Casie Chitty in the Transactions of the Royal Asiatic Society. A few rough pillars and slabs scattered at random in a thick jungle are the only remains now visible.

Wijaya's companions and successors soon established themselves in different parts of the country, and in the fifth reign, that of Pandukábhaya, the seat of Government was finally removed about forty miles north-west to Anurádhapura. A king of Mádampe (Tanne Wella Báhn), and the queen Alliyara Sáni, who has been referred to in a previous section, are the only other Royal personages having their residence within the District, of whom, as far as I am aware, history contains any record.

In Upham's Collections (Vol. III., p. 324 *et seq.*) there is an account of the removal of the branch of the Bó tree from Jambudwípa to Bódhimandala at Anurádhapura, &c. In this tract particular mention is made of a Malabar nation having been called to assist in a local war which occurred in the time of Tissa who followed Duṭṭhagámini. The foreigners landed at Kárativu, fourteen miles north of Puttalam, and appear to have proceeded towards the interior nearly by the line of the present Kuruñgala road. What we are to understand by the nine hundred cannons which the Malabars brought with them, it is difficult to surmise; probably the confusion arises from mistranslation.

The inhabitants, as in other maritime Districts, are composed of people of many nations. The Muhammadans or *Moormen* are said by Sir A. Johnston to have first settled in the Island in the early part of the Eighth century; they formed portion of those Arabs of the house of Haslum who were driven from Arabia by the tyranny of the Caliph Abdul Melek Ben Merwen, and who, proceeding southwards, made various settlements in the South of India and Malacca. In Ceylon they carried on a very extensive trade in rice, indigo, chanks, cheya, &c.; and by making advances to the natives for the purpose of

repairing the tanks, were the means of keeping the northern part of the Island in a very prosperous condition. These are the most industrious and mercantile class ; they are the traders, boutique keepers, master fishers, &c. ; they also deal largely in cattle, and are frequent purchasers of Government taxes. They are for the most part confined to the immediate vicinity of the sea ; there are, however, Moor villages scattered about the interior, the inhabitants of which are much disliked and feared by the natives. The Moors have mixed up with their own faith many superstitions borrowed from Hinduism.

Of *Malays* but few reside in the District, and these are soldiers, pensioners, or descendants of such, and in general hold small Government employments, such as peons, &c.

The *Dutch* descendants generally find employment as clerks, post-holders, &c. It is greatly to be regretted that this class relies so much on the support of Government ; they possess qualities which one would expect to adapt them for the life of tradesmen ; and if so employed they would be better off and much more independent. Some foolish prejudice is the only obstacle to this desirable change. The majority, I believe, adhere to the Dutch and Protestant Church.

The *Portuguese* descendants now form, on the whole, a very degraded class, and seem to be looked down upon by all. They profess Roman Catholicism.

The low-country *Sinhalese* employ themselves in keeping boutiques or taverns, trading in salt, cultivating cocoanut gardens, &c. They have to a great extent forgotten Buddhism, and for the most part seem to have no fixed opinion on religious matters, changing their faith with astonishing nonchalance at the call of interest or whim.

The *Sinhalese* who live in the jungle pattus treat those of the coast with much scorn ; they adhere with a tolerable firmness to Buddhism, but have not failed to conjoin with this comparatively pure faith countless superstitions borrowed from

other nations. Latterly, owing to the sloth and ignorance of the priests, many of the people are becoming indifferent to Buddhism, and while one constantly finds viháres going to ruin, few if any are rising to supply their places.

A large number of *Tamil* coolies annually pass through the District on their way to and from the coffee estates in the interior; of these not a few take up their residence about Puttalam or other villages, being employed as carters, placed in charge of young cocoanut plantations, &c.

There is still one race to be mentioned, many of the customs prevalent among which are singular and worthy of attention; I refer to the *Mukkuvar*. These people are Christian Tamils, and are found, I believe, solely along the coast and to the north of Chilaw. They intermarry with each other and with Tamil Christians, but keep a good deal apart from the other inhabitants. In general appearance they somewhat resemble Moormen. At one time they formed a very influential body and possessed large tracts of land; but being almost without exception addicted to drinking, they have now sunk very much in the social scale. The *Mukkuvar* headmen are termed *Rájavanniya*, and *Kumáravanniya* respectively, and by an ancient custom these titles ought to descend, not from father to son, but from uncle to nephew. To describe the origin of this strange practice would occupy more time than can at present be afforded; I therefore omit it.

I have thus endeavoured to give a description of this District. There is nothing of particular interest, but the recording of such statistics is often useful at a future period, which must plead my apology for laying so dry a paper before the Society.

ROCK INSCRIPTION AT GURUGOḌA VIHÁRE
IN THE MAGUL-KO'RALE, SEVEN-KÓRALES.

BY A. O. BRODIE, Esq.

ON a late official tour through my District and through a part of Seven-kóralés, in company with the Government Agent of this Province, we visited the viháre of Gurugodá at Giritáwa in Magul-kóralé, about twenty-five miles south of Annarádhapura. This is one of the so-called rock temples, which are abundantly scattered over the country. The dwelling for the priests is as usual considerably elevated, being built on a projecting knoll, and is in the form of a square enclosing a small open and sunken court, in which on each successive morning the village women stand, while one of the priests, concealed behind a curtain, reads aloud portions of the sacred books. The temple itself is on a higher platform, and is formed by running up a wall at the front part of a wide shallow cave formed by a huge over-hanging ledge of rock. The internal walls are ornamented in the customary manner with crude, vividly coloured paintings, which pourtray the tortures to be endured in a future state of existence by the wicked. A few mutilated but very neatly carved Buddhas lying near the doorway, and a half-ruined Dágoba, complete the resemblance between this and the hundred structures of a similar character to be met with here.

A flight of stairs rudely cut out of the solid rock leads to the summit of the peak, from whence one obtains an extensive view over a country flat and fertile in its general character, but diversified by numerous isolated granitic groups. On a precipitous face of rock opposite the baṇa-maḍuwa, I found that a space about four feet square had been brought to a smooth surface and then covered with a long inscription, partly in Siy-halese and partly in Páli. Not having time to copy the whole

of this, the head priest obligingly caused it to be transcribed on an ola, which he presented to me on the spot. This ola I placed at different times in the hands of two well-informed natives, and having compared the translations made by them, beg to lay the perfected English version before the Society.

It will be observed that the inscription is simply a grant to the priests of this vihāre of certain villages and lands (so far as their produce is concerned) for the purpose of defraying the ordinary expenses of the establishment.

It is dated in the year Saka 1701, which I believe corresponds to 1779, A. D., and is stated to have been issued in accordance with the wishes of the King, Kīrti Śrī Rāja Siṅha, who, according to the Mahāwanso, reigned from A.D. 1747, to A.D. 1781, a statement in so far according with the inscription. It is only necessary to add, that the arrangement of words and clauses has been only so far altered as to make the translation tolerably intelligible.

TRANSLATION.

“ On this Thursday the 13th day after the full moon of the month Wesak in the year of the glorious king Saka, 1701.

“ For the purpose of performing the rites and offerings in the Vihāre Galé Vihāre of Girihāwa beyond Mī-oya in the Maha-mēda-pattu of Magul-kōralē.

“ This being suggested by the Wannī Mudaliyār of Girihāwa, and by Pilimatalawwē Wijayasundara Rājakarunā Sēnādhipati Rāja Mantri who performs the offices of Maha Disāwa of Puttalam Munnēsaram A’naiviluntān including the Seven-kōralēs, and Mahā Adigār, and by the Minister’s son who performs the duties of Ilāluwadana Nilame,* the son of the said Sēnādhipati.

“ This being suggested, the Supreme Lord of Laṅkā, Kīrti Śrī Rāja Siṅha, who is endowed with every regal power and adorned with gems of virtue, celebrated for might in his own and foreign dominions, presiding like the God Sakra and conducting like Buddha himself, having ascended the throne

* The officer having charge of the King’s wardrobe.

of the wealthy city Sayikandanum, hereby sacrifices to the Wérágala Dágaba (*Dágabnahansé*) the pyramid at Wérágala, on the east of this side of Gurugoda Bévuma, on the south from this side of Yantan Pallewallewatia Wérágala and Pempurugalla, on the west from this side of the village Belliagama Wérágala Lokáhettigama Bévuma, on the north from this side of the tank of Waduressa and the stone post of the water reservoir of Giribáwe, all the houses, trees, gardens, high lands, and low lands* situated within these four limits, to be possessed, as to all the produce thereof, by Dhammarakkhita Unnánsé of Giribáwe, his disciples and their successors from generation to generation on condition of performing the Buddhist sacrifices.

“ May the kings, ministers, and other persons who come into this world hereafter, without disturbing or encroaching, endeavour to obtain glory and *nirvána* by increasing the offerings more and more.

“ Should any one dispossess (the priests) of grass, timber, flowers or fruit, he will be born a great *prétá*.”†

Note by Honorary Secretary, 1882.

[Appended is a line for line transcript in Sinhalese (A) and Roman characters (B) of this inscription as recently (December, 1881) copied, by request, under the direction of C. E. Jayatilaka Hulugala, Raṭémahatmayá of the Vanni Hatpattu in the Kurunégala District, who writes:—“The Kórála whom I got to take the copy from the rock tells me the characters are very illegible, and that it was with difficulty he deciphered them.” The amended translation (C) from the Kórála's MS. copy is by B. Guṇasékara, Translator to Government.]

* “Highlands and low lands,” i.e., paddy fields and chéna land.

† A wandering mischievous demon.

A.

ශ්‍රී ප්‍රබ සකරුඡ විෂිසෙන් එකවැදහස් හත්සිය එකව පැණිති පුත තනිවු මෙ වරුසයෙහි වෙසග මස අව ගෙලෙස්වක හම් නිදිස ලත් වුහස්සොනිදද මේ දවසෙහි මාගුල්කෝරලේ බද මැදපත්තුමේ මීමකෙන් මෙ ගොඩ ගිරිබාමේ මේරගල විහාරය සහ මෙහි පුද්ග්ලිකකම් පවත්වා පිහිස ගිරිබාමේ වගන් මුද්දසන්සේ ව මේරකඤ්ඤ හිදුසන්සිසිහුන් පුතාලම මුදාසාරම ආනමලොද්දව ආතුරව සත් කෝරලේ මහ දිසාව සා මහ අබ්බාසරණි කරණ පිඵම හලවුමේ විජයපුදුරු රජ සිරිණ සේනාති පති රජ මහානුකරණන් විසිහුන් ඒ සෙයාති පතින්ගෙන් තිත්තවු හරවමක හලමේ කරන අමානා පුතානුසන්සිසිහුන් විජය ශ්‍රී හපනවු උතුමා දේව ස්වාමිදුරුවානම්වහන්සේව හලකරසිටි නැගෙදි මේරගල සහ මෙහි දුග්ධකන්සේව පුඬි දිසානා ගසෙන් ගුරුගොඩ බැඳුමෙන් මෙ පිටත් දකුණු දිසානාගසෙන් සත්තමැලවෙල මාමිසෙන් හැකෝතම වෙල්වැව් න් මෙ පිටත් පවුම දිසානාගසෙන් මේරගල ලෝකාගොවිදිගොම බැඳුමෙන් මෙ පිටත් උතුරු දිසානාගසෙන් වදුරු සස්වැමෙන් පලෙස්ගිරිබාමේදිසතිල්මේගල්වැබෙන් මෙ පිටත් මෙහි සාපු සකර මාගුමෙන් මැදිදිගොඩවමකසෙවතනා ගොල ආදි සිසලලම මෙහි පුබු පසස ප්‍රයෝජන වදිනා රහව සයිබන්ඩ තම් ශ්‍රී වෘත ප්‍රවරසෙහි රජු ශ්‍රී හා පරම්පරවට සිටු පසස ප්‍රයෝජන වදිනා රහව සයිබන්ඩ තම් ශ්‍රී වෘත ප්‍රවරසෙහි රජු ශ්‍රී පදපප්‍රාප්ත හෝසෝ බල සම්පතා ගොසක ගුහ රත්නාලංකිතවු උතුම් ප්‍රවද්දස දේසානු හ ත සකෝ හෝස්ස පතල ක්‍රිතයී ශ්‍රී රජ සිංහ දෙව් මහ රජෝත්තමානම්වහන්සේ දෙමෙසු හි ලාසසෙන් වැඩ සිට බොඩිසක වරිනානු කුලව පුජකල වදල සේදන් මෙහි මතු ලොව පතල වගනාවු රජ මහාමානාදි කොසිතරම් කොහොකුන්සිසිහන් මෙ අවුලක් උබිරහසක් ගොකරණින් වඩ වඩා පුද පවත්වමින් සෙයාකුන්සිසිහන් සම්පත් ලබන්ව උත්සක කරනසේ ශ්‍රී ලන්කේස්සර උතුම් සෙදි වදල පතනයි නිහන්වා සදිවා සදිවා පුජන්වා සදිවා එලන් පුබු බෝගේ හතින් දෙසා මහා සේනෝ හම්සානි.

B.

Śrī suddha Saka rāja varshayen ekvādahas batsiya ekata pēmini yuga namvū me varuṣayechi Vesaga masaḥ ava
 telesvaka nam tithiyalat Brāhaspotindā mē daraschi Māngul Kōralē bada Mēḍapattuvē Mfōyen me
 goḍa Giribāvē Vēragala Vihārāya yana mehi pudaōlakkam pavatvana pinisa Giribāvē Vanni Mudiyaṇsē Dh
 ammarakkhita bhikshūnvisinut Puttalama Munāssarama A'naḍondāra eṭṭuḷva Sat Kōralē Maha Disāva
 hā Maha Adikāran karaṇa Piḷuma Talavuvē Vijayasundara Rājakirāṇa Sēnādhīpati Rāja Mantrisvarayan
 visinut ē Sēnādhīpatingen nijātavū Heluwaḍana talamēkarana amāṭiya puttrayanvisinut Vijaya Śrī bhajanavū
 utumā dēva svāmidaruvānavahansēṭa ṣaḷakara siji tēṇēdi Vēragala yana mehi Dāgapvahansēṭa pūrva disābhā
 gayen Gurugoḍa Bēumen me piṭat dakunu disābhāgayen Yaktā Mēḷavela Māmiyen Hēgōgama Velvēṭi
 n me piṭat pachechima disābhāgayen Vēragala Lōkāhēṭṭigoma Bēumen me piṭat uturu disā bhāgayen Vadurē
 ssē vēven pallē Giribāvē dīyagilmō galṭēben me piṭat me kiyaṇu satara māimen mēdivū goḍamaḍa seranabā
 kola ādi siyallama mehi Buddha pūjāva pavatvamin Giribāvē Dhammarakkhita Unnānsbēgē sisyānu si
 sya paramparāvaṭa sivu pasaya prayōjana vidināragāṭa Sayikkhaṇḍa nam Śrīvardhana pravarayechi rājja śrī
 padappṛāpta tējō bala sampanna naikaguna ratnāḷaḡkritavu utum suradēsa desānu ga
 ta yasō tējas patala Kīrtti Śrī Rāja Sīgha devī maha rājōttamāyānavahansē devēndra vi
 lāsāyen vēḍasiṭa Bōḍhisatva charitānu kūḷava pūjākāla vadāla sēdin meli matu lova
 phala vannārvū rāja mahāmāyādi koyitaram kenekunvisinvat mīṭa avulak
 uddharanayak nokaramin vaḍa vaḍā puda pavatvamin swarga mōksha sampat labanṭa
 utsaha karansē Śrī Laukēsvara utum yedi vadāla panatayi. Tinnanvā yadivā
 kaṭṭhau pupphanvā yadivā phalan Buddha bōge nabin deyya malā pētō bhavissati.

C.

"On this Thursday, the 13th day after the full moon of the month Vesak in the year 1701 of the correct Saka era.

"For the purpose of performing the religious rites and ceremonies in the Véragala Viháre of Giribáva on this side of Mí-oya in the Mēdapattu of Magul Kóralé.

"This being suggested to the victorious, prosperous, and paramount Sovereign Lord by the Vanni Mudaliyár of Giribáva, by the Priest Dhammarakkhita, and by Pilimatalavvé Vijayasundara Rájakirana Sénádhipati Rája Mantri who performs the offices of Mahá Adigár and Mahá Disáva of the Seven Kóralés including Puttalam, Munéssaram, and A'naiviluntán, and by the minister's son who performs the duties of Haluwaḍana Nilamé, the son of the said Sénádhipati.

"This being suggested, the Supremo Lord of Lañká Kirti Śrī Rája Sipa, who ascended the throne of the illustrious city Śrīvardhana called Sayikhandā, who is endowed with glory and power, is adorned with gems of virtue, and who has extended his fame and glory throughout his own great kingdom and (foreign) countries, seated himself like the god Sakra, and, in conformity with the life of Bódhisatva, offered all the houses, trees, high lands and low lands, situated within these four limits, viz., this side of Gurugoda Bévuma on the East of the Véragala Dágoba (relic-repository), this side of of Yakta Mēlavela Múmiya and Hegógama Velvetiya, this side of Véragala on the South, Lókāhetṭigama Bévuma on the West, and this side of the tank of Vaduressa and the stone post of the water reservoir of Giribáva on the North, to be possessed for the sake of the four priestly requisites by the disciples of Dhamma-rakkhita Unnánsé of Giribáva, and their successors, on condition of performing the Buddhist ceremonies.

"May the Kings, Ministers, and other persons who come into this world hereafter, without disturbing or encroaching, endeavour to obtain the bliss of heaven and release, by increasing the offerings more and more.

"Should any one dispossess (the Priests) of grass, timber, flowers or fruit which belong to the Buddha* he will be born a great *prétá*."†]

* Reading යොහෙර වුඩ යොගය for වුඩබෝගේ කපිත්ඳෙය.

† A disembodied spirit suffering misery.

CATALOGUE OF CEYLON BIRDS.

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ORDER: ACCIPITRES.

SUB-ORDER: ACCIPITRES DIURNI.

Fam.: Falconidæ.

a.—AQUILINÆ.

<i>Aquila Bonelli</i> , Temm.	The Genoese Eagle.
<i>Aquila pennata</i> , Gmel.	The Pennated Eagle.
<i>Spizaetus Nipalensis</i> , Blyth.	The Beautiful Crested Eagle.
<i>Spizaetus limnaetus</i> , Horsf.	The Crested Eagle.
<i>Ictinaetus Malayensis</i> , Temm.	The Black Eagle.
<i>Hæmatornis Cheela</i> , Latham.	The Cheela Eagle.
<i>Hæmatornis spilogaster</i> , Blyth.	The Ceylon Eagle.
<i>Pontoactus leucogaster</i> , Gmel.	White-bellied Sea Eagle.
<i>Pontoactus ictbyætus</i> .	
<i>Haliastur Indus</i> , Bodd.	Siva's Kite.

b.—FALCONINÆ.

<i>Falco peregrinus</i> , Linn.	The Peregrine Falcon.
<i>Tinnunculus alaudarius</i> , Briss.	The Kestrel Falcon.
<i>Hypotriorchis chicquera</i> , Shaw.	The Rufus-headed Falcon.

c.—MILVINÆ.

<i>Baza lophotes</i> , Temm.	The Cohy Falcon.
<i>Milvus Govinda</i> , Sykes.	The Cheela or Govinda Kite.
<i>Elanus melanopterus</i> , Daud.	The Black-winged Falcon.

d.—ACCIPITRINÆ.

<i>Astur trivirgatus</i> , Temm.	The Three-streaked Kestrel.
<i>Accipiter badius</i> , Gmel.	Brown's Sparrow Hawk.
<i>Accipiter nisus</i> , Linn.	The Sparrow Hawk.

e.—CIRCINÆ.

- Circus Swainsonii, *A. Smith.* The Pale Harrier.
 Circus cinerascens, *Montague.* The Ashy Falcon.
 Circus melanoleucos, *Penn.* The Black and White Falcon.

SUB-ORDER : ACCIPITRES NOCTURNI.

Fam.: Strigidæ.

a.—SURNINÆ.

- Athene castanotus, *Blyth.* The Ceylon Chesnut-winged Owl.
 Athene scutellata, *Gray.* The Hairy Owl.

b.—BUBONINÆ.

- Ephialtes scops, *Linn.* The Scops-eared Owl.
 Ephialtes sunia, *Hodgson.* The Reddish Owl.
 Ephialtes lempigii, *Horsf.* The Lempigi Owl.
 Ketupa Ceylonensis, *Gmel.* The Ceylon Eared Owl.

c.—SYRNINÆ.

- Syrnium Indrani, *Gray.* The Ulamá Owl.

d.—STRIGINÆ.

- Strix Javanica, *Gmel.* The Indian Barn Owl.

ORDER: PASSERES.

SUB-ORDER I. : FISSIROSTRES.

A. F. NOCTURNI.

Fam.: Caprimulgidæ.

a.—STEATORNINÆ.

- Batrachostomus moniliger, *Layard.* The Ceylon Oil Bird.

b.—CAPRIMULGINÆ.

- Caprimulgus Maharattensis, *Sykes* The Maharatta Goatsucker.
 Caprimulgus Kelaarti, *Blyth.* The Nuwara Eliya Goatsucker.
 Caprimulgus Asiaticus, *Latham.* The Indian Goatsucker.

B. F. DIURNI.

Fam.: Hirundinidæ.

a.—CYPSELINÆ.

- Cypselus Balasicensis, *Gray.* The common Palm Swift.
 Cypselus melba, *Linn.* The common Large Swift.

- Cypselus affinis*, *Gray*. The Blackish Swift.
Macropteryx coronatus, *Tickell*. The Crested Swift.
Collocalia brevirostris, *McClellan*. The Edible-nest Swallow.
Acanthylis caudacuta, *Lath*. The Spiny-tailed Swallow.

b.—HIRUNDININÆ.

- Hirundo gutturalis*, *Scop*. The common Indian Swallow.
Hirundo hypertythra, *Layard*. The Red-bellied Swallow.
Hirundo domicola, *Jerdon*. The Bungalow Swallow.
Hirundo daurica, *Linn*.

Fam.: *Coraciadæ*.

a.—CORACIANÆ.

- Coracias Indica*, *Linn*. The Indian Roller.
Eurystomus Orientalis, *Linn*.

Fam.: *Trogonidæ*.

- Harpactes fasciatus*, *Lath*.? The Fasciated Trogon.

Fam.: *Alcedonidæ*.

a.—HALCYONINÆ.

- Haleyon Capensis*, *Linn*. The Cape King-fisher.
Haleyon Smyrnensis, *Linn*. The Smyrna King-fisher
Haleyon atricapillus, *Lath*.
Ceyx tridactyla *Linn*. The pretty Dwarf King-fisher

b.—ALCEDONINÆ.

- Alcedo Bengalensis*, *Gmel*. The Indian King-fisher.
Ceryle rudis, *Linn*. The Black and White King-fisher

Fam.: *Meropidæ*.

a.—MEROPINÆ.

- Merops Philippinus*, *Linn*. The Philippine Bee Eater
Merops viridis, *Linn*. The Indian Bee Eater.
Merops quinticolor, *Keill*. The Five-coloured Bee Eater

SUB-ORDER II. TENUIROSTRES.

Fam.: *Upipidæ*.

a.—UPUPINÆ.

- Upupa Senegalensis*, *Swain*. The Hoopoo.

*Fam. : Promeropidæ.**a.—PROMEROPINÆ.*

<i>Nectarina Zeylanica, Linn.</i>	The Ceylon Sunbird.
<i>Nectarina minima, Sykes.</i>	The smaller Sunbird.
<i>Nectarina Maharattensis, Lath.</i>	The short-billed purple Honeybird.
<i>Nectarina Lotenia, Linn.</i>	The long-billed Honeybird.
<i>Dicaeum Tickelli, Blyth.</i>	Tickell's Honeybird.

*Fam. : Meliphagidæ.**a.—MELIPHAGINÆ.*

<i>Phyllornis Malabarica, Lath.</i>	Mulabar Honey Eater.
<i>Phyllornis aurifrons, Temm?</i>	Green Honey Eater.
<i>Phyllornis Jerdoni, Blyth.</i>	Jerdon's Honey Eater,

*Fam. : Certhiadæ.**a.—SITTINÆ.*

<i>Dendrophila frontalis, Horsf.</i>	Blue Nuthatch or Creeper.
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SUB-ORDER III. DENTIROSTRES.

*Fam. : Lusciniidæ.**a.—MALURINÆ.*

<i>Orthotomus longicauda, Gmel.</i>	The rufous-headed Tailorbird.
<i>Cisticola eursitans, Blyth.</i>	The Grass Warbler.
<i>Cisticola omalura, Blyth.</i>	The mountain Grass Warbler.
<i>Drymoica valida, Blyth.</i>	Layard's Grass Warbler.
<i>Drymoica inornata, Sykes.</i>	
<i>Prinia socialis, Sykes.</i>	

b.—LUSCININÆ.

<i>Acrocephalus dumetorum, Blyth.</i>	The mountain Marsh Warbler.
<i>Phyllopneste nitidus, Blyth.</i>	
<i>Phyllopneste montanus, Blyth.</i>	
<i>Phyllopneste viridanus, Blyth.</i>	

[List continued in next Number.]

SUB-ORDER II. TENUIROSTRES.

FAM: UPUPIDÆ.

a. UPUPINÆ.

Upupa Senegalensis, Swain. The Hoopoo.

FAM: PROMEROPIDÆ.

a. PROMEROPINÆ.

Nectarina Zeylonica, Linn. The Ceylon Sunbird.
Nectarina minima, Sykes. The smaller Sunbird.
Nectarina Maharattensis, Lath. The short-billed purple Honeybird.
Nectarina Lotenia, Linn. The long-billed Honeybird.
Dicaeum Tickelli, Blyth. Tickel's Honeybird.

FAM: MELIPHAGIDÆ.

a. MELIPHAGINÆ.

Phyllornis Malabarica, Lath. Malabar Honey Eater.
Phyllornis aurifrons, Temm? Green Honey Eater.
Phyllornis Jerdoni, Blyth. Jerdon's Honey Eater.

FAM: CERTHIADÆ.

a. SITTINÆ.

Dendrophila frontalis, Horsf. Blue Nuthatch or Creeper.

SUB-ORDER III. DENTIROSTRES.

FAM: LUSCINIDÆ.

a. MALURINÆ.

Orthotomus longicauda, Gmel. The rufous-headed Tailorbird.
Cisticola cursitans, Blyth. The Grass Warbler.
Cisticola omalura, Blyth. The mountain Grass Warbler.
Drymoica valida, Blyth. Layard's Grass Warbler.
Drymoica inornata, Sykes.
Prinia socialis, Sykes.

b. LUSCININÆ.

Acrocephalus dumetorum, Blyth. The mountain marsh Warbler.
Phyllopneuste nitidus, Blyth.
Phyllopneuste montanus, Blyth.
Phyllopneuste viridanus, Blyth.

c. ERYTHACINÆ.

Copsychus saularis, Linn. The Dialbird.
Copsychus, ———?
Copsychus macrourus, Gmel. The long-tailed Thrush.
Pratincola caprata, Blyth. The Meadowchat.

<i>Pratincola atrata</i> , <i>Kelaart</i> .	The black do. or Newera Ellia Robin.
<i>Calliope cyana</i> , <i>Hodgs</i> .	
<i>Thamnobia fulicata</i> , <i>Linn</i> .	The sooty Warbler.
<i>Cyanecula suecica</i> , <i>Linn</i> .	
<i>Sylvia affinis</i> , <i>Blyth</i> .	

d. PARINÆ.

<i>Parus cinereus</i> , <i>Vieill</i> .	The ashy Tomtit, or Titmouse.
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e. MNIOTILTINÆ.

<i>Zosterops palpebrosus</i> , <i>Temm</i> .	The white-eyed Bushcreeper.
<i>Zosterops annulosus</i> , <i>Swain</i> .	The mountain Bushcreeper.
<i>Iora Zeylanica</i> , <i>Gmel</i> .	Ceylon Bushcreeper.
<i>Iora typhia</i> , <i>Linn</i> .	The green Bushcreeper.

f. MOTACILLINÆ.

<i>Motacilla boarula</i> , <i>Linn</i> .	The grey Wagtail.
<i>Motacilla Indica</i> .	The Indian Wagtail.
<i>Budytes (Enicurus) viridis</i> , <i>Blyth</i> .	The green Wagtail.
<i>Corydalla (Anthus) Richardi</i> , <i>Blyth</i> .	Richard's Pipit.
<i>Corydalla rufula</i> , <i>Vieill</i> .	The rufous Pipit.
<i>Corydalla striolata</i> , <i>Blyth</i> .	The mountain Pipit.

FAM: TURDIDÆ.

a. FORMACARINÆ.

<i>Brachypteryx Palliseri</i> , <i>Kelaart</i> .	Palliser's Ant-thrush.
<i>Drymocapthus fuscicapillus</i> , <i>Blyth</i> .	
<i>Alcippe nigrifrons</i> , <i>Blyth</i> .	The mountain Thrush.
<i>Pitta brachyura</i> , <i>Jerdon</i> .	The short-tailed Pitta.

b. TURDINÆ.

<i>Oreocincla spiloptera</i> , <i>Blyth</i> .	Thrush.
<i>Merula Wardii</i> , <i>Jerdon</i> .	Ward's Thrush.
<i>Merula Kinnisii</i> , <i>Kelaart</i> .	The Newera Ellia Blackbird.

c. TIMALINÆ.

<i>Garrulax cinereifrons</i> , <i>Blyth</i> .	Ashy-headed Garrulax.
<i>Pomatorhinus melanurus</i> , <i>Blyth</i> .	The Ceylon Pomatorrhinus.
<i>Malacocercus griseus</i> , <i>Gmel</i> .	The "Seven Brothers" or dungthrush.
<i>Malacocercus rufescens</i> , <i>Blyth</i> .	The reddish—do.
<i>Malacocercus striatus</i> , <i>Swains</i> .	The mountain—do.
<i>Dumetia albogularis</i> , <i>Blyth</i> .	
<i>Chrysomma sinense</i> , <i>Lath</i> .	

d. ORIOLINÆ.

<i>Oriolus melanocephalus</i> , <i>Linn</i> .	The black-headed Oriole.
<i>Oriolus Kundoo</i> ? <i>Sykes</i> .	The golden Oriole.
<i>Oriolus Indicus</i> , <i>Bris</i> .	

e. PYCNONOTINÆ.

<i>Criniger Ictericus</i> , <i>Strickland</i> .	The ashy Bulbul.
<i>Pycnonotus penicillatus</i> , <i>Kelaart</i> .	Yellow-eared Bulbul.
<i>Pycnonotus flavirictus</i> , <i>Strickland</i> .	Bulbul.
<i>Pycnonotus hæmorrhous</i> , <i>Gmel</i> ?	The <i>Condatchee</i> Bulbul.
<i>Pycnonotus atricapillus</i> , <i>Vieill</i> .	The black-headed Bulbul.
<i>Niltava rubeculoides</i> , <i>Hodgs</i> .	
<i>Hemipus picatus</i> , <i>Horsf</i> .	The black and white Hemipus.
<i>Rubigula gularis</i> , <i>Gould</i> ?	
<i>Hypsipetes Nilgherriensis</i> , <i>Jerdon</i> .	Nielgherry Hypsipetes.

FAM: MUSCICAPIDÆ.

f. MUSCICAPINÆ.

<i>Cryptolopha cinereo-capilla</i> , <i>Blyth</i> .	The grey-headed Flycatcher.
<i>Leucocerca compressirostris</i> , <i>Blyth</i> .	
<i>Myiagra cœrulea</i> , <i>Vieill</i> .	
<i>Tehitrea paradisi</i> , <i>Linn</i> .	The paradise Flycatcher.
<i>Butalis latirostris</i> , <i>Brie</i> .	The Flycatcher.
<i>Butalis</i> ——?	
<i>Stoporala melanops</i> , <i>Blyth</i> .	The blueish Flycatcher.

FAM: AMPELIDÆ.

a. CAMPEPHAGINÆ.

<i>Pericrocotus flammeus</i> , <i>Forster</i> .	The elegant red Flycatcher.
<i>Pericrocotus peregrinus</i> , <i>Linn</i> .	The smaller Do.
<i>Campephaga Macei</i> , <i>Linn</i> .	Mace's Caterpillar Catcher.
<i>Campephaga Sykesi</i> , <i>Strick</i> .	

b. DICRURINÆ.

<i>Artamus leucorhynchus</i> ? <i>Gmel</i> .	The Shrike.
<i>Artamus fuscus</i> , <i>Vieill</i> .	Rufous-bellied Shrike.
<i>Edolius Malabaricus</i> , <i>Scop</i> .	King Crow.
<i>Edolius retifer</i> , <i>Temm</i> .	The crested King-crow.
<i>Dicrurus cœrulescens</i> , <i>Linn</i> .	
<i>Dicrurus edoliformis</i> , <i>Blyth</i> .	
<i>Dicrurus longicaudatus</i> , <i>A. Hay</i> .	
<i>Dicrurus leucopygialis</i> , <i>Blyth</i> .	
<i>Dicrurus macrocerus</i> , <i>Vieill</i> .	
<i>Irena puella</i> , <i>Horsf</i> .	The blue Shrike.

FAM: LANIIDÆ.

a. LANIINÆ.

Lanius superciliosus, Linn.*Lanius erythronotus*, Vigors.*Tephrodornis affinis*, Blyth.

Grey-backed Shrike

Butcher-bird.

SUB-ORDER IV. CONIROSTRES.

FAM: CORVIDÆ.

a. GARRULINÆ.

Cissa puella, Blyth & Layard.

The mountain Jay.

b. CORVINÆ.

Corvus splendens, Vieill.*Corvus culminatus*, Sykes.

The Indian hooded Crow

The common carrion Crow.

FAM: STURNIDÆ.

a. GRACULINÆ.

Gracula religiosa, Linn.*Gracula ptilogenys*, Blyth.

The Brahmin Maynah.

Dr. Templeton's Maynah.

b. STURNINÆ.

Pastor roseus, Linn.*Heterornis pagodarum*, Gmel.?*Heterornis Malabarica*, Gmel.?*Heterornis cristatella*, Linn.*Acridotheres tristis*, Linn.

The rose-coloured Starling.

The pagoda Starling.

The Malabar Starling.

The sub-crested Maynah.

Paradise Grackle, Maynah.

FAM: FRINGILLIDÆ.

a. PLOCEINÆ.

Ploceus Bengalensis, Linn.*Ploceus Philippensis*, Linn.*Ploceus Manyar*, Horsf.

The Indian Weaverbird.

The Philippine Weaverbird.

b. FRINGILLINÆ.

Amadina undulata, Lath.*Amadina Malabarica*, Linn.*Amadina Malacca*, Linn.*Amadina rubronigra*, Hodgs.*Amadina striatus*? Linn.*Amadina pectoralis*? Jerdon.*Passer Indicus*, Jard. & Selby.

The reddish Indian Finch.

The Malabar Finch.

The Malacca Finch.

The striated Finch.

The Newera-Ellia Finch.

The Indian Sparrow.

c. EMBERIZINÆ.

Emberiza? Scop.

Bunting.

d. ALAUDINÆ.

<i>Alauda Malabarica</i> , Scop.	The Indian Lark.
<i>Alauda gulgula?</i> Scop.	The crested Lark.
<i>Pyrrhulauda grisea</i> , Scop.	The Indian Pyrrhulauda.
<i>Mirafrā affinis</i> , Jerdon.	

e. LOXINÆ.

<i>Loxia</i> , Sp.	Crossbill.
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FAM: BUCEROTIDÆ.

a. BUCEROTINÆ.

<i>Buceros gingalensis</i> , Shaw.	The small Hornbill.
<i>Buceros violaceus</i> , Wagler. apud Blyth.	} The large Hornbill.
<i>Buceros pica</i> , Scop.	
	The black and white Hornbill.

ORDER SCANSORES.

FAM: PSITTACIDÆ.

a. PSITTACINÆ.

<i>Loriculus Asiaticus</i> , Edwards.	The small Ceylon Parakeet.
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b. PYZOPORINÆ.

<i>Palæornis Alexandri</i> , Linn.	The Alexandrine Parakeet.
<i>Palæornis torquatus</i> , Briss.	The rose collared Parakeet.
<i>Palæornis cyanocephalus</i> , Gmel.	The ashy-headed Parakeet.
<i>Palæornis Calthropæ</i> , Layard.	Layard's purple-headed Parakeet.

FAM: PICIDÆ.

a. CAPITONINÆ.

<i>Megalaima Philippensis</i> , Briss.	The large red-headed Barbet.
<i>Megalaima Zeylanica</i> , apud Blyth.	The large Barbet.
<i>Megalaima flavifrons</i> , Cuv.	The yellow-headed Barbet.
<i>Megalaima rubricapilla</i> , Gmel.	The small red-headed Barbet.

b. PICINÆ.

<i>Picus gymnophthalmos</i> , Blyth.	Layard's Wood-pecker.
<i>Picus Macci</i> , Vieill.	Small spotted Wood-pecker.
<i>Picus Maharattensis</i> , Lath.	

c. GECININÆ.

<i>Gecinus chlorophaneus</i> , Blyth.	The green red-headed Wood-pecker.
<i>Brachypternus aurantius</i> , Blyth.	The orange-coloured Wood-pecker.
<i>Brachypternus Ceylonus</i> , Forster.	Ceylon Wood-pecker.
<i>Brachypternus rubescens</i> , Vieill.	The reddish Wood-pecker.

d. COLAPTINÆ.

Micropternus gularis, *Blyth*. Ground Wood-pecker.

FAM: CUCULIDÆ.

a. COCCYZINÆ.

Centropus Philippensis, *Cuv*. The Philippine Ground Cuckoo.

Centropus chlororhynchos, *Blyth*. The yellow-billed Cuckow.

b. CUCULINÆ.

Oxylophus melanoleucos, *Gmel*. The crested black Cuckow.

Oxylophus Coromandus, *Linn*. The collared crested Cuckow.

Endynamys Orientalis, *Linn*. The Eastern black Cuckow.

Cuculus micropterus, *Gould*. The ashly mountain Cuckow.

Cuculus tenuirostris, *Blyth*. The narrow-billed Cuckow.

Cuculus Sonnerattii, *Lath*. Sonnerat's Cuckow.

Cuculus varius, *Vahl*.

Cuculus canorus, *Linn*.

C. (surnieulus) dicruoides, *Hodgs*.

C. (chrysococcyx) xanthorhynchos *Horsf*.

c. CROTOPHAGINÆ.

Phœnicophaeus pyrrhocephalus, *Forster*. The Malkoha.

Zanclostomus viridirostris, *Jerd*. The green-billed Malkoha.

ORDER COLUMBÆ.

FAM: COLUMBIDÆ.

a. TRERONINÆ.

Treron bicincta, *Blyth*. The Parrot Pigeon.

Treron Malabarica, *Jerdon*. The common green Pigeon.

Treron chlorigaster, *Blyth*. The large green Pigeon.

b. COLUMBINÆ.

Alsocomus Puniceus, *Tick*.

Carpophaga sylvatica, *Tichel*. The Wood Pigeon.

Carpophaga (Palumbus) Torringtonii, *Kelaart*. Lady Torrington's Pigeon.

C. ELPHINSTONÆ, var, apud *Blyth*.

Columba intermedia, *Strickland*. The Indian Rock Pigeon.

Turtur risorius, *Selby*. The collared Turtle Dove.

Turtur suratensis, *Gmel*. The speckled Turtle Dove.

Turtur humilis, *Temm*. The dwarf Turtle Dove.

Turtur orientalis, *Lath*.

c. GOURINÆ.

Chalcophaps Indica, *Linn*. The Ground Pigeon.

ORDER GALLINÆ.

FAM: PHASIANIDÆ.

a. PAVONINÆ.

Pavo cristatus, Linn.

The Peacock.

b. GALLINÆ.

Gallus Lafayettei, Lesson.*G. Stanleyi*, Gray, female, apud Blyth.

} The Ceylon Jungle Fowl.

FAM: TETRAONIDÆ.

a. PERDIGINÆ.

[of Ceylon.

Gallo-perdix bicalcaratus, Linn, apud Blyth. The double-spurred Partridge*Francolinus Ponticerrianus*, Gmel. The Pondicherry Partridge.*Perdica argoondah*, Sykes.

The Indian Quail.

Coturnix Coromandelica, Gmel.*Coturnix Chinensis*, Linn.*Turnix ocellatus*, Scops.*Turnix ocellatus*, var Taigoor, Sykes.

ORDER GRALLÆ.

FAM: CHARADRIDÆ.

a. ŒDICNINÆ.

Esacus recurvirostris, Cur.

The curved-bill Bustard.

Œdicnemus crepitans, Linn.

b. CURSORINÆ.

Cursorius Coromandelicus, Gmel.

The Coromandel Courser.

c. GLAREOLINÆ.

Glarcola Orientalis, Leach.

The Indian Pratincole.

d. CHARADRIINÆ.

Charadrius virginicus, Bech.

The Marbled Plover.

Lobivanellus Goensis, Strickland.

The Goa Sand Piper.

L. (sarciophorus) bilobus, Gmel.*Hiaticula Philippensis*, Latham.

Small Plover.

Hiaticula Leschenaultei, Lesson.

Do.

Hiaticula Cantiana, Lath.

e. CINCLINÆ.

Cinclus interpres, Linn.

The Turnstone.

FAM: ARDEIDÆ.

a. ARDEINÆ.

Ardea cinerea, Linn.

The common Heron.

Ardea purpurea, Linn.

The purple Heron.

Ardea asha, Sykes.

Ardea intermedia, Wagler.

Ardea garzetta, Linn.

Ardeola leucoptera, Bodd.

The paddy-field Heron.

Ardeola bubulcus, Savig.

The Caboga Heron.

Herodias alba, Linn.

The great white Heron.

Ardetta cinnamomea, Gmel.

The cinnamon Heron.

Ardetta flavicollis, Lath.

Ardetta thalassina? Swains.

Ardetta sinensis, Gmel.

Platalea leucorodia, Linn.

The white Spoonbill.

Nycticorax griseus, Linn.

Tigrisoma melanolopha, Raffles.

Butorides Javanica, Horsf.

b. CICONINÆ.

Mycteria australis, Lath.

Leptoptilus Javanica, Lath.

The Adjutant.

Ciconia leucocephala, Temm.

The large Stork.

Dromas ardeola, Payk.

The smaller Stork.

Anastomus oscitans.

The Anastomus.

c. TANTALINÆ.

Tantalus leucocephalus, Forster.

The white-headed Ibis.

Geronticus melanocephalus, Lath.

The black-headed Ibis.

Ibis Falcinellus, Linn.

The glossy Ibis.

FAM: SCOLOPACIDÆ.

a. LIMOSINÆ.

Numenius phæopus, Lath.

The Whimbrel.

Numenius arquatus, Lath.

The Curlew.

b. TOTANINÆ.

Totanus fuscus, Linn.

Totanus ochropus, Linn.

The green Shank.

Totanus calidris, Linn.

Totanus hypoleucos, Linn.

The common long Shank.

Totanus glottoides, Vigors.

The Indian green Shank.

Actitis glareola, Gmel.

Limosa ægocephala, Linn.

c. TRINGINÆ.

Tringa minuta? Temm.

The dwarf Sand-piper.

Tringa subarquata, Gmel.

Limicola platyrhyncha, Temm.

The broad-billed Limicola.

d. RECURVIROSTRINÆ.

Himantopus candidus, Bonn.

The long-legged Avocet.

Recurvirostris avocetta, Linn.

Hamatopus ostralegus, Linn.

e. SCOLOPACINÆ.

- | | |
|---|---------------------------|
| <i>Rhynchœa Bengalensis</i> , <i>Gmel.</i> | The painted Snipe. |
| * <i>Scolopax rusticola</i> , <i>Linn.</i> | The Wood-cock. |
| <i>Gallinago stenura</i> , <i>Temm.</i> | Horsfield's Indian Snipe. |
| * <i>Gallinago scolopacinus</i> , <i>Bonaparte.</i> | The common Snipe. |
| * <i>Gallinago gallinula</i> , <i>Linn.</i> | The Jack Snipe. |

N.B.—We have only sportsmen's authority for the species of Snipes marked with an asterisk.

FAM: PALMEDEIDÆ.

PARRINÆ.

- Hydrophasianus Sincensis*, *Wagler.* The Screamer, or Jacana.

FAM: RALLIDÆ.

a. RALLINÆ.

- | | |
|--|------------------------|
| <i>Ortygometra rubiginosa</i> , <i>Temm.</i> | The red or brown Rail. |
| <i>Corethrura Zeylanica</i> , <i>Brown.</i> | The Ceylon Rail. |
| <i>Rallus striatus</i> , <i>Linn.</i> | |
| <i>Rallus indicus</i> , <i>Blyth.</i> | |
| <i>Porzana pygmaea</i> , <i>Nan.</i> | |

b. GALLINULINÆ.

- | | |
|---|---------------------------|
| <i>Gallinula phœnicura</i> , <i>Pennant.</i> | The red-tailed Gallinule. |
| <i>Gallinula cristata</i> , <i>Lath.</i> | The crested Gallinule. |
| <i>Gallinula chloropus</i> , <i>Linn.</i> | |
| <i>Porphyrio poliocephalus</i> , <i>Lath.</i> | |

ORDER ANSERES.

FAM: ANATIDÆ.

a. PHENICOPTERINÆ.

- | | |
|---|---------------|
| <i>Phœnicopterus ruber</i> ? <i>Linn.</i> | The Flamingo. |
|---|---------------|

b. PLECTROPTERINÆ.

- | | |
|---|-----------------|
| <i>Sarkidiornis Regia</i> , <i>Eyton.</i> | The Royal Duck. |
|---|-----------------|

c. ANSERINÆ.

- | | |
|--|----------------------|
| <i>Nettapus Coromandelianus</i> , <i>Gmel?</i> | The Coromandel Teal. |
|--|----------------------|

d. ANATINÆ.

- | | |
|---|----------------------|
| <i>Mareca Penelope</i> , <i>Linn.?</i> | The Widgeon. |
| <i>Anas pœciloryncha</i> , <i>Lath.</i> | The spotted Duck. |
| <i>Dendrocygna arcuata</i> , <i>Swains.</i> | The whistling Duck. |
| <i>Dafila acuta</i> ? <i>Bonap.</i> | The pin-tailed Duck. |
| <i>Querquedula crecca</i> , <i>Steph.</i> | The common Teal. |
| <i>Querquedula circia</i> , <i>Linn.</i> | |
| <i>Fuligula rufigula</i> , <i>Pallas.</i> | |
| <i>Spatula clypeata</i> , <i>Linn.</i> | |

FAM: COLYMBIDÆ.

PODICEPINÆ.

Podiceps minor, *Latham.*

The little Grebe.

FAM: LARIDÆ.

a. LARINÆ.

Xema bruneicephalus, *Jerdon.*

The Indian hooded Gull.

Larus icthyæetus, *Pallas.*

b. STERNINÆ.

Sylochelidon Caspia, *Pall.*

The Caspian Tern.

Sylochelidon seena, *Sykes.*

The orange-billed Tern.

Hydrochelidon Indica, *Steph.*Gelochelidon Anglica, *Brown.*

The gull-billed Tern.

Onychoprion anasthætus, *Scop.*Sterna melanogaster, *Temm.*

The black-bellied Tern.

Sterna Javanica, *Horsf.*Sterna minuta, *Linn.*

Sterna ———?

Thalasseus cristatus, *Steph.*Thalasseus Bengalensis, *Lesson.*

Tachepetes aquila?

FAM: PELICANIDÆ.

a. PLOTINÆ.

Plotus melanogaster, *Gmel.*

The black-bellied Darter.

b. PELICANINÆ.

Pelicanus Philippensis, *Gmel.*

The Indian Pelican.

Graculus Sinensis, *Shaw.*Graculus pygmeus, *Pallas.*

Notes on some of the Forms of Salutation and Address known among the Singhalese. By the Hon. Mr. JUSTICE STARKE.

THE Singhalese have a great variety of forms of expression in address, to indicate the respect or otherwise, which they wish to shew to the individual; as, in their language itself, there are words and phrases appropriated to particular classes of the people.

For a considerable proportion of those various forms of expression, the fundamental terms of address are,

තෙ (to) and තම (tamá) (from the old root *ta*, thou,*) terms, however, which by themselves, without any honorific as it is called, or affix of respect, are considered properly given to inferiors only; and the term තෙ (to) is now so associated with such inferiority, that if addressed to others it expresses the greatest contempt. Chater says that "in books it conveys no idea of disrespect," Gram. p. 39; and in the *Sidath Sangarawa* it is given with the examples of verbs in the second person: but so early as Ruell's time, the term was not used except to slaves and low caste people.

තම (tamá) is thou! or you! but තෙ (to) is you fellow! sirrah! you creature! or something lower and meaner, for which we have not in English a proper equivalent. Its force on the native mind probably depends on their tenaciousness of birth and condition, as connected with their peculiar notions of merit and demerit in a previous state of existence: sin or demerit, according to Budha, determining the course of a person's existence, as a bullock draws along the carriage to which it is yoked.

We have something of an illustration of this in the anecdote of the countryman and the king in disguise, when they met together in the jungle, how the countryman resented the king's refusal to take food with him, thinking the king supposed he was a low caste man;† and the same sentiment

See the *Sidath Sangarawa* by Mr. Alwis, p. 22, and his observations at pages xlii., xlvii., 100, 154.

† See the *Attanagalu wanse*, *Sidath Sangarawa*, p. clxxxv.

is expressed in a more shocking form, when a native in his asseverations wishes he may be a low caste man or a demon in the next birth, if he is not to be believed.

Where a higher feeling is to be conveyed, some honorific or other is used, which honorifics are variously formed, and unite with each other and with the noun or pronoun in various ways.

തമുശ്ശ (tamusé) *pers. pron.* You, may be addressed to an equal—it is a term of civility, Chater, p. 40, and is even regarded as “rather respectful,” Bridgnell’s Dictionary. It is used, according to Mr. Alwis, (Sidath Sangarawa, p. 158,) “by husbands towards their wives and *vice versa*; and also by some low caste people to the inferior classes of the Vel-lales; by Upasampada priests towards their pupils or Sāmanaras; and even by servants of a higher grade towards the young members of their master’s families.”

തമുഷ്ശാതെ (tamunnāhe) is addressed to an equal or to a superior, but it is “the least of all the acknowledgments of superiority.” Lambrick, Gram. p. 25, note.

തമുഷ്ശാൻശ്ശ (tamunnansé), *pers. pron.* You, is higher; it is addressed to one perfectly equal and for whom we would express some respect. Bridgnell, after Clough, says it is “very respectful.” Mr. Alwis says, “it is used towards each other by persons of an equal station in life amongst the highest class of the Singhalese, and amongst the priesthood.” It may be like our “Learned Sir.”

തമുഷ്ശാൻശ്ശ (tamun wahanse) is still higher; it is addressed to a superior, and is expressive of the highest respect. It may be like our “Worthy Sir.”

Similar to this last is തമുഷ്ശാൻശ്ശ (oba wahanse) which was the term used in the Lord’s prayer; as തമുഷ്ശാൻശ്ശ രാജ്യം വരൂ oba wahansege rajyaya ūwā, (Thy Kingdom come.) But now the term employed is തമുഷ്ശാൻശ്ശ (nubawahanse), a supposed derivative of the former.

And here it may be observed, that generally, in all communications from an inferior, as in communications to one

through a third person, leave to speak අවහර ලබනවා (*avasara labenawa*) to receive permission, must be expressed, Chater, p. 134. And so, in like manner, in approaching and withdrawing, there must be leave to come and leave to go.

වහන්සේ (*wahanse*) is added as an affix to the term for God, and to all the names of God; as also in some relative expressions, as to *Father* in the Lord's prayer, අපගේපියානන් වහන්සේ *apage piyānan wahanse*.

But under the word දෙවියන්වහන්සේ (*Dewiyan wahanse*) Clough points out the difference in its use. Innumerable instances, he says, occur of the honorific being used in the vocative, in which case it may be addressed not only to one of these beings (the gods of Swarga), but also to a king, or any person of rank; but when used in the *nominative*, it marks at once the difference between a heathen god and the Supreme being.

Whatever may be in this, it is certain that the continual recurrence of the honorifics in the Singhalese translation of Holy Scripture, soon offends us; and in some cases, as Jehovah wahanse, the affix almost shocks, coming upon the ear like some discordance in an otherwise heavenly melody.

It were to be wished, therefore, that Christianity could be here attired in a garb more accordant with the simplicity and sincerity of its spirit.

The flatterers of king Dutugemini called him a god.—

ඉක්බිති පින්කිරියාවත්තියන්ගෙන් දවුගමනි රජහවමගේ
Ikbeeti pin kiriya wat kiyanno Dutugemini rajahatanese
කීවස — දෙවියන්වහන්සේ අදාක්වා නුබවහන්සේවිසින්
kiryā — Dewiyanwahanse adadakwa nubawahanse wisin
එකක්අඩු විහාර සියසක් කරවුසෙක එකරවු විහාරවලින්
ekak adu wihara siyayak karawuseka ekarawu wiharawalin
මිරසැවිවිහාරයට

Mirisawetiwihearayata, &c.

Tupawanse, ap. Sidath Sangarawa, p. clxxv.

Then those whose duty it was to declare the meritorious acts (of Buddhism) done by King Dutugemini, said, Dewiyan

wahansa,* many temples to Budha have been erected by thee, and the cost of them exceeds computation, &c.

And the name of another king is placed in the centre of grandiloquence—

සී මත් සී රාජ සිංහ මාහ රාජෙත්තමහානන් වහන්සේ .
 Sree mat sree raja singha maha rajotta mayanan wahanse
His prosperous highness the prosperous king Singha, worthy, great, right regal!

We find also in the extract from an old inscription, ap. Sidath Sangarawa, p. excix., the affix *wahanse* is given to a deceased lady, the queen-mother as she is called.—

සඬු සඬු මවු විසවුන් වහන්සේව
 Swarga stawu mawu-bisawun wahanseta

and Clough gives *විසවුනානන්සේ* (*bisawunnāuse*), as one of the renderings for Queen. The same affix is given to His Excellency the Governor, who is styled *උත්තමානානන්සේ* (*uttamayānan wahanse*) or *උතුමානානන්සේ* (*utumānan wahanse*), which latter is the title given by the translators on one occasion to the governor of Judæa.† The terms are derived from words signifying chief, excellent, or high; and Clough supposes that the term *මහත්මයා* (*mahatmayā*) which is now in its customary use equivalent only to our Mr., had the same common origin, being composed of the words *මහ* (*maha*) great and *උත්තම* (*uttama*) excellence: so that the same term is in fact applied to the two extremes of the social scale; they are both excellent in their place.

As a formal title of office, Mahatmeya denotes a principal Headman; and a Ratte mahatmeya, from ratte රට (*rata*) country, in the sense of a large district of country, is the principal headman of the district. The only higher territorial officer was the Dissave, whose dissavony, from *දිස* (*disa*) or *දිසාව* (*disaawa*) a part or portion, was in the nature of a

* The same term *දෙවිපත්වහන්සේ* (*Dewiyan wahansa*) is employed by Mr. Alwis in his Singhalese version of the Hitopadesa as the corresponding phrase for Please your Majesty! Sidath Sangarawa, p. 206.

† Matth. xxvii. 2. He is afterwards called *අධිපතිසා* (*adhipatīsa*).

province or Satrapy; and the two or three principal Satraps or Dissaves were Adigars, a term which signifies placed over. They were the king's highest officers, like the prefects of Darius, Dan. vi. 1, 2; and the first Adigar was, as it were, his Prime Minister.

In the books we find frequent mention made of the King's council, and of his counsellors—the මෙතිමුම (mætītuma), the අග්‍ර මැති (agra mætiyá), and the දෙවනුමැති (dewanu mætiya), all, no doubt, from the same common origin with the Greek METIS, wisdom or ability in council. But what this high council was, and who was the arch-counsellor or the second counsellor, does not clearly appear.*

Nor, except in the low country, is there now any officer in waiting as we say, or *Modliar of the Gate*, viz. of the මාලිගාව (Māligāwe) or royal palace, where the king's court or audience chamber commonly was. But *Mudianse* and *wāsale* or *wāhale Mudianse* (the Singhalese synonyme), is not unfrequent as an agnomen, among the Kandyan Basnaïke Nillemes and Rattamahatmeyas.† Such may constitute what Mr. Armour (Kandy Law) calls “the *Mudeli peroowa* or titled class.” For I find nothing in the nature of our nobility among the Singhalese, either of the higher or lower ranks: only when a person got office under the Government and more especially ඔහු තනතුර (*situ tanatara*) an eminent place, from තනතුර (*tanatura*) “office, service, appointment, employment,” (Clough), his descendants commonly assumed the title as an agnomen or patabendigey name, the *patta tahadoo* or office frontlets becoming likewise heir looms in the family, and

* The royal poet Rajadhi Raja Singha speaks of the priest Moratotte in this way—

පවරන මැති මෙතොට යති මනාවන්

pawarana mæti Moratotte yati manawan

but perhaps this only means, Moratotte, no less excellent as a friend, than distinguished as a priest.

† Among the former there is at present Errawwawele 'Senanayeke Bowaneke bahoo Narayene Raje goroo wahale Mudianse, Basnaïke Nilleme of Lanka tilleke and Gadala denia dewale.

according to Mr. Armour, in his *Kandy Law*, descending with the parveny lands.

Mr. Alwis however, says, "Situ, equivalent to an English Baronet, was a rank which was conferred by the Sovereign on account of the great wealth of a person. It may be considered as a grade of the peerage of our forefathers. A person who had this rank conferred on him had access to the royal household, and was altogether one (as we gather from books) who controlled the councils of the State." Sidath Sangarawa, by Mr. Alwis, p. clviii. But there is some misconception here, as to the grounds on which the comparison is made; and it is not unlikely that office and wealth, the latter the foundation of the former, were the great elements of consideration among the Singhalese. To this day they are tenacious to a degree of their parveny or hereditary land.

The Government Agent is sometimes styled Dissave. But there can be no analogy among officers in systems of government so very different as respects the distribution of official power and duty as the English and Singhalese; and it only tends to perpetuate misapprehension to use the names indiscriminately.

The above, namely, the Adigars, Dissaves, and Rattamahatmeyas, were the principal officers under the Singhalese government; and in the Convention of 1815, entered into after the conquest of Kandy by the English, for the cessation of hostilities and the settlement of the country by a formal declaration of the power and principles of the new Government, they are mentioned or alluded to as the principal chiefs of the Kandyan provinces, and the Mohottales, Coralles, Vidahns, and others, the subordinate headmen from the provinces.

Budha is *wahansé* of course; and the stories of his births or previous states of existence, *Jātaka pot wahansé*, the worthy books *Jataka*, a composition so highly regarded by Buddhists, that, says Clough, "they will offer to it and worship it." The term is also applied to the Buddhist priesthood in

an associated or collective capacity, as in the Introduction to the above book, where it is said, Budha preached the sutra Damsak to many; and among others, and especially, to the five worthy sorts of priests—

පස් වහ වහන්සේ වහන්සේ
pas waga mahanun wahansé

The *Maha tera* of whom we sometimes read, is also called *wahanse*; and *Upáli maha situ* an important person, but whether the same with the *Upali* by whom the *Winiya pitaka* was arranged, does not clearly appear.

The same affix is given to *Seriyut maha himiya*, the great proprietor, so called apparently from his being a great and distinguished *author* of his time. And to *Swaminy Nagasenaya* in his colloquy with the king,* wherein he shewed the king, with great adroitness and felicity, the rapidity of a defunct's passage throughout the universe to another birth, by comparing it to the quickness of thought in the mind, the celerity with which our thoughts pass from one object to another.

In these personages, and *Upali maha situ*, we may see the respect and honours anciently in use to be given to literature and philosophy; using these high terms of course, in the very limited and peculiar sense in which they must here be taken.

We have a further illustration of the extent of literary fame in the wonderful *Ráhula* of Tottegamuwe, another distinguished literary character to whom the affix is given.—

ප්‍රී සංගබෝධී ප්‍රී විජය බාහු පරිවේනාධිපති ත්‍රිපිටක
Sree sanghabodhi sree wijaya bahu pariwenādhipati tripitaka
වගේ ස්වරාචයාර්‍ය ප්‍රී රාහුල ස්තවිර පාදයන් වහන්සේ
wagee swarachayarya sree Rahula stawira padayan wahanse

He seems, like another *Rahu*, to have eclipsed all others; and his birthplace passed into a proverb, but a proverb

* Milindapprasne, ap. Sidath' Sangara, p. cccxxvii.

highly characteristic of a Buddhist people, with whom literature is good, but Buddhism is better:—

තොටගමුවේ උපනාත මොකද බන බරිනානි
 Tottegamuwe upannāta mokada bana berinan.

What signifies being born at Tottegamuwe if you don't know bana?

We find the affix also with හාමුදුරුවෝ (*hāmudurawo*), a compound term, and applied as a domestic appellation to the head of a house or family, in a combined sense of master and instructor.

And in a deed written by Karangodde unnanse of Potgul wihare in Saffragam, A. D. 1835, that priest describes himself thus:

පොත්තුල් විහාරායිවස් කරගොඩ සංඝ රක්ඛිත උන්වහන්සේ
 Potgul wihārāyiwās Karangodde sanga rakkhita unwahanse.

The description here given signifies preserved or defended by the priesthood; and the Rev. Mr. Gogerly, who gives me this explanation, adds, that priests when ordained take names of that kind.

In regard to *Unnansé*, that word is employed not only as an affix of respect, but also substantively or as a pronoun of the third person. In this way, it is given to every Buddhist priest; and the තෙර (*tera*) or old priest of a wihare, who has attained his degree, is a Terunnanse.

The word is not used, however, to any other than such priest:—it is not given to the kapuwa or god's priest, nor to the yakadura or devil's priest, nor to the balikariya or planet priest. For the poor Singhalese are by their fears, fostered by their very creed, beset on every side with malignant influences, which like the red untwinkling eyes of their witches never rest in their baneful operation. And it is observable, that even Budha, when he found a demon prowling about for an opportunity to catch hold of an infant child in order to eat it, (so says the Jataka) did not attempt to do more than chide her, and repeat to her the commandments as a help to her. His reproof was in these words:—

භූවන නැත්තිය පෙරත්තෝ අකුසල් කොට සකින්නි ව
 Nuwana nœttiya peratto akusal kota yakinni wa
 උපන්නෙයි වි දුන් වනාහි නැවතත් අකුසල් කරන්නෙයි
 upanne hi weedan wanāhee nœwatat akusal karanne hee

විද අභූවන නැත්තිය කියා
 weeda anuwana tœnœttiya kiya

O woman of unreflecting mind! It is because of demerit in a former life you were born a yakinni, and do you still go on meritless! Unwise person that you are! Then repeating to her the commandments as a help to her, he let her away, and she vanished in the air.

A generic name for a Buddhist priest is said by Bridgnell to be ගනිනාන්සේ (*ganinnānse*), probably from some root signifying learning or wisdom, whence we have *Ganesa* the Hindoo god of wisdom, *ganaya* a poetical measure, and *ganitaya* the science of arithmetic. But Clough derives the word differently, and thinks it is an inferior term applicable to the lowest order of priests.

The same affix is given to the ගුරු (*guru*) or preceptor, who is accordingly termed a *gurunnanse*.†

The secretary of the District Court subscribes himself secretary swamiha, which is a derivative from swamy or swamaya, a lord or master. This appears singularly inappropriate: his proper appellation as clerk of court is certainly *unnanse*.

Among the different members of a family or household, there are several words and phrases in common use, and applied in what is called a familiar way; but they appear generally to be of a common character, and not words of affection or endearment.

† For "a religious teacher who is not a Buddhist," the term is භික්ෂුකයා (*teertthakaya*) which imports in Buddhist estimation, and also it seems etymologically, an unbeliever. See *Sidath Sangarawa* by Mr. Alwis, p. 38. Qy. whether this term is connected with the appellation given to the prophet under the name Tirshatha? See *Ezra* ii. 63; *Neh.* vii. 65, viii. 9.

And what we call an infant in arms, they more loosely call අතලමයා (*ata-lamaya*), a child in the hand. So, what we call the family, or inmates of the house, they appear to call අන්තෝ ජන (*anto-jana*), the people inside.

As respects an inferior servant, a cooly, a slave, or a person of low caste, he is බොල (*bola*), dross and rubbish—one whose demerit has sunk him low.

For the weaker sex in general, and බිරු (*bheeræ*) or the timid one, seems a favourite epithet, the Singhalese have many names expressive of desirable female qualities. But these are mostly of a sensible kind; and when a word of affection is used, it seems to have more of passion than an English phrase in the like case. Their sorrows seem to partake of the same character. For when they are bereaved of a beloved object, or suffer any ill, they but say, ඉනියා (*iniya*) Hech me! it is my misfortune—the consequence of some demerit of mine in a former life! unless it be the death of a person, for then it will probably be imputed to his own sin! *

In the Kandyan Districts, or among the Singhalese strictly so called† there are terms by which they designate their children as to size. What a big heavy boy! This is ලොකු (*loku*); What a little tiny thing! This is ටිකිරියා (*tikiriya*). Similar to this, and no less descriptive, is the appellation given to the attending servant of a Buddhist priest, අබිත්තයා (*æbittaya*), a bit boy! which indeed, in point of fact, he commonly is. The term may be connected with the *ébètèr* and *ebetikos* of the Greek, *youthful*, a *stripling*.

And here it may be observed, that the distinguishing terms characteristic of the priest and the layman are ග්‍රහස්ත (*gra-*

* See the poetess Gajaman's elegy on the death of her father, ap. Sidath Sangarawa, p. cxxvi.

† The Kandyan or hill country is distinguished from the lower or maritime districts by the name Singhalese; and the town of Kandy is Maha nuwera, the *Megaló-polis*, or great city, the metropolis. These names are easily accounted for, but they are accorded as given.

hasta) and පුටුජිත (*prawrajita*),* householder and wanderer,—the one living in a ග්‍රහ (*graha*) house and family, the other dwelling in a පංසල (*paṇsale*) a leaf-hut or bower.

The *Wihare* need not however, I presume, be of this temporary description; and the image room is even termed ප්‍රතිමා ග්‍රහ (*pratima graha*) in the Cotta inscription *ap.* Sidath Sangarawa, p. cxcix.

The priesthood, or ministers as they appear more properly to be, are a distinct order, of different degrees: namely, the ඉමන්තරු† (*srámanera*), the devotee or pupil priest, somewhat possibly, like the sons of the prophets: and the උපසම්පද (*upasampada*), one graduated or advanced: the senior or old man of the *wihare* being the ස්ථවිර (*stawira*) or තෙර (*tera*) *terunнанse*.

There was also the තපස්සා (*tápasayá*), from තප (*tapa*) mortification or religious austerity; but as respects “persons of the *Silwat* class,” as Mr. Armour has it, or voluntary ascetics of their own act, they are not priests but laymen.

The dwellings of the priests are, as we have seen, regulated and characteristic of them. So is their dress, the සිඳුර (*siwoora*), a term connected perhaps with the *sisúrna* or *sisúra* of the Greeks, and the method of their obtaining it;—the manner in which they are to get their livelihood or subsistence, even to their alms cup or begging bowl;—their meal time;—and the season when they may discontinue travelling, and remain within doors.

It is from the manner of life thus prescribed, the priest is termed භික්ෂු (*bhikshu*), one living on alms, an almsman; and the assemblage of priests මහ ඩ්වස්සහ භිමිස (*maha bik-sangha himiya*). They do not constitute a fraternity, nor are the priests friars, as has been represented. They are not so or-

* See Armour's *Kandy Law*.

† This word, like that from which it is derived, and many others in the language, occurs in different forms; and a good Dictionary of Synonymes is a great desideratum in Singhalese literature.

ganized: they belong to an earlier time, and a less political system.

Connected with the period when the priests discontinue travelling, and are to remain within doors, is the festival time; and particularly the 'great පෙරහර (*perahara*), or previous procession, from the new to the full moon of July, the sight seeing month, after which *Wassana*, or the rainy season, of four months, begins.* These processions occur in history so early as Fa Hian's time.

As respects colour, the great colour was නිල (*nila*) the colour of the sky and ocean, and like these, indeed, susceptible of many shades from green to dark blue; but commonly denoting this last, the colour of Vishnu's garment. It is to this colour allusion is so often made in the descriptive writings of the Singhalese poets; as when they sing the praises of feet, soft and beautiful "as the full blown lotus"—

කොමල සුපිපි සර සදිසා පද පෙ
komala supipi sara sadisa pada &c.

So also, when they speak of "lotus hair;" and the නිලොකාර (*nilangkara*), or blue ornament of dark eyes.

In like manner, perhaps, we may read concerning Budha, that he "opened his lotus mouth" and spoke—

මුව පිසුම පොඩසා
muwa piyuma pobaya

his mouth, lotus-like, he opened, his lips opening like the opening lotus! But by the phrase "lotus mouth" generally, මුව තඹර (*muwa tambara*), as an expression of beauty, may be intended the red lotus, and lips red with the betel leaf, which is so commonly used and so coveted by the natives of all classes, that it might well give occasion to the name, as a designation of the island තාම්බ පර්නි (*Tambra parni*), red leaf, whence the classic appellation for Ceylon, Taprobane.

* Note The *Wassana* or rainy season of the civil or agricultural year is different. It is a portion of *Wassana*, and consists of but two months, the time of the early rains, previous to the sowing for the Maha harvest, so called, there being at the other equinox මැදිනිදින (*medindina*), another, the සල (*yala*) or farther harvest.

Nilā was thus perhaps what may be called the royal or government colour, and words of that formation may be so derived. There was a නිලමේ (*nilame*) or Nilleme at the head of several of the departments. It was the title usually given to any high official, and it is still the title of the great officer of government in the Temples.

The term in question may, I conceive, be so rendered accordingly. Thus, when the valiant Gaja bahu rajah, whose city (unlike the banquet house of a great king, as his ministers ignorantly represented) had been entered by an enemy, and many captives taken, at length resolved on an expedition for their recovery, he went out from the council with නිලයේදයා (*neela yódayá*), the great officer of war. These words, however, have been rendered *Neela the giant*, and “the great giant Neela”—* as if නිල were a proper name, and not like නිලය (*nilaya*) and නිලතල (*nilatala*), an office, place, or situation.

Among other terms of high import, ස්‍රී (*sree*) happy, prosperous, was a distinguished one, and supposed eminently due to Lakshmi, wife of Vishnu, the goddess of the affections and happiness; commonly known here by the name of *Sree* or *Sriya Kántáwa* (Clough, *voce* Lakshmi) or, as we sometimes find it, *Siri Kata*, the lucky lass! The virtuous queen Lelavaty, who is feigned by the poet as possessed of the *situmina†* or wishing-gem, a fabulous symbol of grace and beauty known in the East from the earliest times, “whithersoever it turneth, it prospereth,” Prov. xvii. 8—is represented as the very impress and realization of this goddess, winning at once the hearts and minds of all.

පසක් සිරි කත විලසින් මුළු ලෝ මනා භුවිජිතත්
pasak siri kata wilasin mulu lo mana nuwangat

She is also called *Wijeya sree* (Clough, *sub voce*) from the conqueror of that name, the leader of the great *Budhist*

* See the Friend for Sept. 1839, and the Sidath Sangarawa by Mr. Alwis, p. lxvii.

† Otherwise written චින්තා මානිකයා (*chinta manikyaya*).

settlement which had the effect of driving into the jungle, the snake and demon tribes inhabiting the island, and proved the foundation of a new and powerful dynasty, the *Singhalese*, so called from the *singha* or lion-like character of the conqueror, or his mythological origin.

The same term became also the designation of the language: what the name was previously does not appear, any more than the national name of the subdued tribes. They were the Yakhos of Lanka, and their language was the language of the Yakhos. In point of fact, however, it certainly forms a constituent part of the *Singhalese*; and, judging from analogy, the continued existence of such is probably due to some aboriginal element in the population, which it would be interesting statistically to investigate.

Sri was the affix of royalty, and *ඌ* (*Sree*) the signature or sign manual to royal grants and sannases. See Armour's Kandy Law. Ceylon was *ඌලංකාදිවප* (*Sri Lanka Dvipa*), and Adam's Peak *ඌපාදාය* (*Sri pādāya*) the prosperous footstep, the prosperous Lanka; and sometimes also the epithet was bestowed both on temples and individuals, the prosperity intended in all these and the like cases being Buddhist prosperity, that is to say, the result of what they call merit; as in Budha's epithet, *ඌරිගාන* (*Sirigane*), *filled with prosperity!* which is the salutation in the Rajawaliya, *ඌමඌරිගානාය* (*nama sri ghanāya*), and the Soelalihini Sandese, *ඌමඌරිගානාය* (*nama sree ghanaya*), or as it is expressed in the Guttile Jataka, in that extatic way in which Budha appears always to be spoken of,

සිය පින් පිරිනි සරා

Siya pin sirin sarae

prosperous in prosperity from his own merit!

merit and prosperity standing with the Buddhist, in the relation of cause and effect.

There are several modes of reverence or obeisance among the *Singhalese*, the shoes also off:—placing the right hand on

the breast, and bowing; joining the hands, raising them thus to the forehead and bowing; falling on the knees, and so doing; and prostration on the face upon the ground.

In this last, the great prostration, when made to Budha, the whole body must in a manner touch the ground. This extreme measure of subjection may have been effected by the priesthood. But perhaps it was not difficult to accomplish among a predisposed people; other circumstances besides their books, all tending to an adoration of Budha, and his *three helps* to Budhic merit:—his relics, his doctrines, and his priests.



Rock Inscriptions. By A. O. BRODIE, Esq.

I have the pleasure to transmit copies of two Rock Inscriptions from this District.

The first of these is at Koodawewe of Palligame in Paria-wille Pattoo. It is engraved on a rock about fourteen miles south-east of Putlam, and a few hundred yards north of the Kurnegalle road at Tohneegalle.

၆၁၆၇၀၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀
 ၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀
 ၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀
 ၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀
 ၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀၁၁၂၃၄၅၆၇၈၉၁၀

Koodawewe is about a mile to the west of Parmakande (whence I procured various inscriptions which, on a former occasion, I had the honour to bring to the notice of the Society), and five or six miles to the south of Ahtheekoolum, where there

are remains of various Wihares, the stones composing which are of great size, and in many instances neatly worked. The inscription is cut on a shelving face of rock, sixteen or twenty feet above the water level of the tank. It forms one large curving line, about thirty-five paces in extent. The letters are from eight to twelve inches in height, boldly cut, forming triangular grooves (and not outlined by isolated dots, as is sometimes the case). Owing to the roughness of the granite, the letters are somewhat irregular in size and position : but there is only one blank, and in that instance, I am inclined to think that the spot never was occupied by letters.

On the whole, this is much the most perfect inscription in this character which I have yet met with. Regarding its origin, the natives appear to have no tradition whatever.

The second inscription I have not had an opportunity of visiting in person. The intelligent Modliar of the Northern District of Chilaw discovered it when travelling through the jungle on duty, and obligingly forwarded a copy of it to me immediately. It is engraved on the Moolegame Kande at Moolegame in Kirimittia Pattoo of Demele Pattoo, two miles west of Kongkaddewille, and I should suppose about two and twenty miles west of Putlam.

□ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Most of the characters in this inscription, will be found in the other ; and of the remainder, the majority, if not all, will be found in those of which, on previous occasions, I have had the pleasure of transmitting copies.

On the Veddahs of Bintenne. By the REV. J. GILLINGS.

THE District of Bintenne is divided into four Palarthies, resembling the Pattoos among the Tamuls. These are presided over by a Headman or Vannian in the employ of the Government. They include several smaller divisions and villages, in some of which a subordinate Headman or Udeyar is stationed. The four principal districts or divisions are the following. Rugampalarththy, Ratthuvapalarththy, Pallappalarththy and Udappalarththy.

Rugampalarththy contains the villages of Carinjuvapetty, Urugarmum, Kithul, Kottarnecathy, Tambili, Yarvutthu and Larvarney.

Ratthuvapalarththy includes, Unarpparny, Pallagamma, Kitthulappar, Padavaly, Alaruly, Ummeny and Ikkargalla.

Pallappalarththy includes Magamuney, Mahally, Cudarvely and Kaluthalarevvey.

Udappalarththy contains Allagodde, Thikkuvally, Karlaviny Larvagoddy, Marangaly, Thivukkumbury, Marrarken, Comarne, Mevisuvettey, Koolikky, Pathitthalarky, Keruivarne, Kaluly and Velekumburey.

These are inhabited by a mixed population of Singhalese and Veddahs. The proportion of each will be about equal. According to the census taken in October 1849 the amount of each district is as follows.

	Males.	Females.	Total.
Rugampalarththy . . .	161	152	313
Udappalarththy . . .	329	326	655
Ratthuvapalarththy . . .	243	211	454
Pallappalarththy . . .	55	61	116

making a total of seven hundred and eighty males, and seven hundred and fifty females; or in all, including men, women, and children, fifteen hundred and thirty eight. This shews a very small population considering the extent of the country; but it exceeds, as I am informed, the census taken in 1841.

The population has increased gradually of late years, but it is not easy to say what relation it bears to former times, as no records appear to have been kept, and very little interest to have been taken about the people by the Dutch or the Kandyan Government. Our attention at present will be directed almost exclusively to the Veddah population of this region, forming, as is supposed, about one half of the number here given. Several intermarriages having taken place between the two peoples, it is not easy to make an accurate estimate of each.—Various are the conjectures entertained as to the origin of the Veddahs. That which obtains most credit is the following: that the Veddahs originally formed a part of a Singhalese community resident on the coast of India, and were from thence transported to this Island at a very early date for certain offences, before the Singhalese as a people came to these shores. It is certainly probable that they were among the first, if not the first, inhabitants of the Island.

Their language is a corrupt dialect of the Singhalese; being mixed up to a large extent with Singhalese people, they understand the common language and can speak it, but among themselves they generally prefer their own inferior dialect. As they have little to do with the Tamuls, the majority of them, unlike the coast Veddahs, are quite unacquainted with the Tamul language. Their present habits, as contrasted with their former, in many instances present the aspect of civilization and improvement. Formerly they lived entirely in holes in the rocks, and wandered about the jungle, living on nothing but yams, honey, and flesh, procured in hunting. They were very wild in their character and shunned human society as much as possible. They clothed themselves with the bark of trees and leaves, and had no fixed habitation. Since the English Government, about six or seven years ago, took an interest in these unhappy outcasts, and calling them together built them houses, planted trees for them, and supplied them with food, they were brought to abandon, to some extent,

their old habits, and to take an interest in agricultural pursuits. They began to cultivate chenas, sow natchery, plant Indian corn, and attend a little to their cocoanut and plantain trees, some of which are now in bearing. A very few, however, attend to paddy cultivation. All of them now have small huts, built of sticks and straw, besides their rock houses, which belong to different families, and are divided into several compartments. To these latter they have still recourse, when out in the jungle during the inclement season.

Whilst on a visit to them in October last (1849) I saw two or three families living on large rocks: here they cooked, ate, and slept, while others of their companions were away in the jungle, seeking roots for food or attending to agricultural operations: they will frequently exchange the few commodities they possess or grow, for cloths or ornaments of various kinds. The women are exceedingly fond of a profusion of beads, necklaces, earrings and ornaments for the hair; and they load their children with rings round their waists, arms, and fingers, bells on the toes, and necklaces in abundance. Their food consists of natcherry, rice, pumpkins, brinjall, and other vegetables of native growth, as well as the flesh of the monkey, guana, and wild hog; they chew the bark of trees as a substitute for the betel and arecanuts, of which they are very fond when they can obtain them. A bow and arrow were their only weapons in former times. Now some of them possess guns.

Murder was formerly exceedingly common among them, now it is less so; they were accustomed to cut their victims to pieces with axes, or to shoot them with bows, and if found out in the crime, they were required by their headman to make compensation to the surviving relatives by the payment of about five and twenty shillings, or something equivalent, this being the price of a slave. The uncle of the party aggrieved usually enquired into the matter in dispute, and the elders settled the case. An uncle had power to sell

his nephew ; the price of a female slave was double that of a male. Adultery and polygamy are still common among them. If a man does not like a woman whom he has married, he will, after a year, take her back to her father's house and give her into his charge. Theft and lying too are still prevalent. At the latter they are particularly expert, and seem to evince nothing like shame when discovered. I met with several instances of this amongst them. In the time of their headmen, those who committed theft were beaten or kept to hard work in the headmen's houses. In particular cases, they were carried before the Kandyan kings. Their headmen were called Thissarvu. They received no salary from the Government, but practised extortion on the people. The only headman of themselves unconnected with the Government, is called Rollah. He has no power over them and can only give them advice. The Udeyar receives from Government five dollars per month, and the Vidahn is paid for petty cases.

Of agriculture they know but little, some of them cultivate a chena for a year, and after reaping a crop, wander to some other place. Where they plant trees they will generally stay longer : they turn up the ground with mammotties, but know nothing of ploughing and manuring, and attend little to either fencing or watering ; consequently, they frequently lose all the fruit of their trees, and labour from the attacks of wild beasts that infest the jungle around them. Some of them keep a few buffaloes. For paddy they pay tithe to Government, but not for Indian corn or natcherry. They trade principally with Moormen with whom they barter their honey, fowls, &c., for rice, cloths or ornament. They purchase bows from Vellase, and exchange various commodities among themselves. Many of them are beginning, however, to learn the value of money.

They are fond of shooting and hunting, and will go out to the jungle for weeks and even months together ; when out

they procure honey from the rocks by attaching themselves to long sticks fastened to bushes and trees on the sides of the mountain, and then, crawling down to the sheltered place in the rock where the honey is deposited, and having smoked out the bees and taken the honey, they pull themselves up again in the same way, and then descend the mountain with the spoil, which they divide equally among their companions. Many of them seem to prefer these pursuits to the steady and monotonous occupations of husbandry. Their love of a wandering life is not extinguished, and they court independence and freedom from labour. If introduced to the bustle of towns and the restraints of society, they break away as soon as possible to their beloved solitudes and their old companions, preferring a life of hardship in the jungle to pampered indulgence out of it. I tried hard to induce an orphan lad, of apparently bright parts, to forsake his forest home and come with me to the Mission station, that he might be boarded, fed and educated, so as to be fit for some useful employment, but he was deaf to my entreaties. "When I am hungry," said he, "I chew the bark of trees and pluck roots; when I am cold, I light a fire and warm myself; I want no books, nor learning, nor money; only give me an axe and I am content."

Their medicines are made from the bark of trees, roots, and leaves. Some are said to be very efficient in curing diseases, and especially hurts from wounds and snake bites. For fever they take pills prepared by Singhalese doctors. Like most natives, they use charms, and tie strings round their waists, which they believe will remove the disease under which they labour. Of late the Government has done little for them; and as they have taken few precautions to provide for their own necessities, it is not easy to say how long they will continue in fixed habitations, should their crops fail. Doubtless the aid formerly afforded them was designed not to supersede, but to stimulate their own exertions; but the philosophy of this they are scarcely at present able to understand.

They assist the Singhalese among whom they live in various matters by working for them, and thus a few of them learn to cultivate chenas and to take care of their crops in houses.

Of education they are totally destitute. Formerly schools were established and supported among them, but the labour and money spent thereon were in vain. The people had no taste for learning, and wanted their children to accompany them to the jungle in quest of food. They have no written language and can only count to a very limited extent. Their habits at present are certainly too migratory to present any encouragement to systematic efforts for their instruction.

Their religion is devil-worship. They will acknowledge that there is one God, whom they believe to be greater than the devil, but him they neither fear nor worship. One of them said to me, "When God gives us food, we are glad, and wish him to sit on our mat; when he does not, we curse him and will not allow him to do so." They appear to know little or nothing of a future life, of heaven or hell, where the soul goes to when it leaves the body, or whether it will be happy or wretched. A number of them were formerly baptized * on a profession of faith in Christ and willingness to abandon their superstitions; but almost all of these have gone back again to their former habits and follies. What they formerly heard they have forgotten. They declare it impossible for them to live without devil-worship. "When they did so, their children were sick, their cattle died, their trees would not bear fruit, and their crops were cut off." It was vain to expostulate and argue. They believe the souls of their departed relations to be devils who have power to hurt them, and therefore they perform ceremonies to them at regular seasons, and especially when they are sick. The Singhalese who live among them exert a bad influence over them in these respects. It is very difficult indeed to get fit persons, who know their lan-

* Up to 1844 there had been baptized in Bintenne 163 men, 48 women, and 85 children; since that time very few have received this rite.

guage, to labour among them. Without these, desultory efforts will be of little service. The Veddahs are mostly low in stature, but some of them are strong, active men, and most of them appear to be healthy and little subject to disease. They differ considerably from the coast Veddahs in their habits and dispositions. The latter appear to me far more tractable and hopeful. They have improved much by the instructions they have received, and are tolerably well acquainted with the leading truths of Christianity.

The country of Bintenne is extremely rocky. The roads through it are in a very bad state; in many places full of stumps of trees and very irregular and uneven. The country suffers much from drought; in the summer months only a few springs are found here and there, and the people have in some places to go several miles for water. Ebony, Sattin, and Halmaniel wood abounds in the forests; and Bamboo and Tamarind trees are plentiful. In many places the land is exceedingly fertile, and the surrounding prospect is full of grandeur and beauty.

Note by the Secretary.—Some rather exaggerated notions have been recently entertained concerning this race of people, and it has been stated before the Ethnological Society of London, that they subsist upon decayed wood, for which there is in reality no foundation. It has also been stated, that they do not bury their dead; this is also an error, as I am assured by a Gentleman who has studied their habits closely, that they inter them wrapped in mats. The Veddahs do not appear to use Tobacco, though Knox, in his account of Ceylon, has a portrait of one of them smoking his pipe. The Veddahs, both of Bintenne and of the Sea-coast, consider themselves a very high caste, calling themselves Veddah Vellales. Some Vellale families in Batticaloa are said to have sent out to invite the young Veddah women to come and cook for them, as the Vellales may not eat food cooked by persons of inferior caste.

*Rock Inscription at Piramanenkandel. Communicated by S. C.
CHITTY, Esq.*

CL M
π/Δ2
C74T2L2P
U L U
2D FJ37
L U T 2 2
- V V - 2 - 2 -

The above inscription was taken from a stone slab at the head of the grave of a Mohammedan Saint at Piramanenkandel, a deserted village to the east of the Mee Oya, about 10 miles from Putlam in a North-Easterly direction. The characters are in an ancient and obsolete form of Pali, and Mr. Chitty inclines to believe the Inscription has no reference to the Mohammedan Saint, but records some event connected with the history of Buddhism.*

An Analysis of the great Historical Poem of the Moors, entitled SEERAH. By SIMON CASIE CHITTY, Esq.

I have the honour to present to the Society a copy of the great Historical Poem of the Moors, entitled Seerah, which I have procured from Madras, where an edition has lately been published at the Vidhyavilasa Press by Sheik Abdul Khader Nina Lebbe Alim of Kailpatnam and two other individuals.

* Vide Letter, in Appendix to Journal No. V., p. xx.

Among the numerous compositions which the Moors in Ceylon and the South of India possess in the Tamil language, none perhaps holds a much higher rank in their estimation than the Seerah, and it is not undeserving the distinction. Its subject is the history of Mohammed, and its author is alleged to have been the celebrated Moorish Poet Omar, who lived at the Court of the Raja of Etteapuram in the early part of last century, and wrote it under the patronage of Abu Kassim, a wealthy merchant of Porto Novo. In style it is a clever attempt at imitation of the Naishadam and other popular epic poems of the Tamils; but unfortunately it is interlarded with so many Arabic words, that it is scarcely intelligible to a Tamil scholar without the assistance of a Mohammedan expounder. In the *Ceylon Gazetteer* mention was made by me of this poem, in treating of the literature of the Moors; but the limits which I had prescribed to myself in that work did not permit me to enter into any details; and these have, I believe, remained hitherto unknown to all but the Moors: I have therefore thought it desirable to draw up the present analysis for insertion in the Journal of the Society.

The Seerah comprises three books, of which the first is called Biladat Kanda; the second Nubuvat Kanda; and the third Hijarat Kanda.

I.—The Biladat Kanda is divided into the following twenty-four chapters.

The first chapter, consisting of twenty stanzas, opens with an invocation of the Deity, eulogizes Mohammed and the other prophets and saints, and concludes with an apology for attempting to write the poem itself.

The second chapter, consisting of fifty-six stanzas, gives a fanciful description of Arabia, especially of the rains which descend upon its mountains, and the streams which flow from them, diffusing fertility and riches through the land.

The third chapter, consisting of twenty-two stanzas, contains an encomium on Mecca, which is said to occupy as important a position in the universe as the pupil does in the eye, and to surpass every other city both in riches and magnificence.

The fourth chapter, consisting of sixty-seven stanzas, treats of the creation of Adam and Eve; their expulsion from Paradise, and their subsequent settlement at Jiddah in Arabia. It also traces the line of the patriarchs from Adam to Abraham, and thence through Ishmael to Abdulla, the father of Mohammed: these being the personages on whom the *noor*, or ray of divine intelligence descended successively, at last resting on Mohammed, and forming a glory around his head.

The fifth chapter, consisting of one hundred and twenty-five stanzas, narrates the particulars of the conception of Mohammed in the womb of Amina, wife of Abdulla; the announcement of that event to her in a dream by Adam, Edris, Noah, Abraham, Ishmael, Moses, David, Solomon and Jesus; Abdulla's journey to Medina, on traffic, and his death at Abwa; and the birth of Mohammed, which is said to have been marked by the cessation of the oracles in Arabia, the overthrow of the idols in the Kaba, and the extinction of the fire of the Magi in Persia.

The sixth chapter, consisting of one hundred stanzas, relates to Mohammed being suckled by Alima, wife of Harid of Honei, who had one of her breasts withered, but as soon as the prophet began to suck, it was made whole and yielded milk.

The seventh chapter, consisting of ninety-one stanzas, refers to the story of the angel Gabriel impressing the seal of prophecy upon the back of Mohammed, between his shoulders, as he went out along with Alima's sons to tend her sheep.

The eighth chapter, consisting of fifty-seven stanzas, treats of Mohammed's going to Medina with his mother, on a visit to her kinsfolk; her death and burial at Abwa, and his return to Mecca, where he lived under the protection of his grandfather Abdulmuttalib, and afterwards under that of his uncle Abu Talib.

The ninth chapter, consisting of fifty-eight stanzas, contains an account of Mohammed's journey to Syria with Abu Talib when only nine years of age, and his conference with Boheira, a Christian monk at Bosra, who having discovered on his person the marks by which the last of the prophets, foretold in

the scriptures, was to be distinguished, protected him from the plots laid against him by the Christians and Jews in the place, and sent him back to Mecca in safety.

The tenth chapter, consisting of eighty-three stanzas, relates to Mohammed's obtaining money and goods on loan from Khadija (a lady of great opulence in Mecca), and proceeding to Syria, in his twenty-fifth year, on a commercial speculation.

The eleventh chapter, consisting of twenty stanzas, treats of a miracle wrought by Mohammed, by causing a spring of water to gush forth in the desert.

The twelfth chapter, consisting of twenty-three stanzas, gives an account of a prodigious serpent which lay on the route to Syria, and went to devour travellers, and which Mohammed slew by merely throwing a straw at it as it hissed and sprang up to swallow him.

The thirteenth chapter, consisting of thirty-one stanzas, describes how Mohammed and his caravan, by the interposition of the angel Gabriel, passed over a river which had overflowed its banks and threatened to arrest their progress.

The fourteenth chapter, consisting of fourteen stanzas, relates to a tiger speaking to Mohammed, allowing him to stroke its head, and retiring from the road which it had heretofore infested to the great dread of the travellers.

The fifteenth chapter, consisting of eighteen stanzas, treats of a serpent, which had long lain on the road to Syria waiting to meet Mohammed; and having at last met him did him homage, and retired into the deep recess of the forest at his desire.

The sixteenth chapter, consisting of fifty-five stanzas, is occupied with the particulars of an interview between Mohammed and Ezura, a Christian monk, whom Jesus had assured that he should not die before he had seen the prophet of the last times, and had given him a sign, namely, that when he (Mohammed) should arrive at the grove of palm trees in which the monk dwelt, one of the dead palms should instantly blossom and bear fruit, which occurred.

The seventeenth chapter, consisting of sixteen stanzas, states that when Mohammed and his caravan were attacked by a party

of robbers, a river miraculously sprang up between him and them, and enabled him to escape from their hands.

The eighteenth chapter, consisting of forty-four stanzas, describes the magnificence of the capital of Syria, and gives an account of Mohammed's entry into it; his reception by the chief of the Christians there, and his mercantile transactions.

The nineteenth chapter, consisting of sixty-six stanzas, treats of a plot formed by certain Christians and Jews in Syria against Mohammed, by inviting him to their quarters and rolling over a millstone upon his head from a height, but from which he miraculously escaped; the hand of the person who rolled the millstone having become attached to it.

The twentieth chapter, consisting of thirty stanzas, relates to an outcry raised against Mohammed by a blacksmith in Syria; his escape from an attempt made by the infidels to assassinate him, and retreat into the house of Uzza, a Christian priest, who recognised him as the prophet foretold in the scriptures, and recommended him as such to the notice of his relation Khadija.

The twenty-first chapter, consisting of thirty-seven stanzas, is occupied with the dreams which Khadija had; wherein she dreamed, amongst other things, that the moon having descended from the heavens settled upon her bosom.

The twenty-second chapter, consisting of sixty-three stanzas, treats of the espousal of Mohammed and Kadija.

The twenty-third chapter, consisting of one hundred and nineteen stanzas, narrates the celebration of his nuptials with Khadija, which was attended with great pomp and magnificence.

The twenty-fourth chapter, consisting of twenty-five stanzas, notices the birth of Fatima, and afterwards enters into the origin and history of the Kaba and the black stone called Hajar al Aswad.

II.—The Nubuvat Kanda is divided into the following twenty-one chapters.

The first chapter, consisting of fifty-five stanzas, treats of Mohammed's retirement from home and going to the mount Hara, in the fortieth year of his age; his interview with the angel Gabriel, who having opened his chest and wrung out the gall

and filled it with wisdom and faith, revealed to him a passage of the Koran, and told him that he was appointed the prophet of God; his communication of this news to his wife Khadija and to her cousin Worakket, a Christian priest, who thereupon declared him to be the prophet whose advent was predicted in the scriptures.

The second chapter, consisting of forty-four stanzas, notices the conversion of Khadija and Abu Bekr, and enters into the particulars of the new creed, and the directions which Mohammed received from the angel Gabriel concerning the form of prayer.

The third chapter, consisting of one hundred and sixty-three stanzas, gives an account of Mohammed's preaching his doctrine publicly in Mecca; the violent opposition of the Koreish against him, and Abu Talib's ineffectual attempt to persuade him to abandon his enterprise.

The fourth chapter, consisting of ninety-five stanzas, relates to the conversion of Omar Ibn Khattab, which was occasioned by an angel, disguised as an ox, wrestling with him and prevailing against him as he was going to trace out Mohammed in his retreat and put him to death.

The fifth chapter, consisting of forty stanzas, relates to an Arab of the desert, who being invited by Mohammed to embrace his religion, told him that he would do it if the latter would make a guana testify that he was the apostle of God, which it did accordingly.

The sixth chapter, consisting of twenty-one stanzas, refers to Utba, who was sent by the Koreish to expostulate with Mohammed and offer him the sceptre, if he would retract his pretensions and conform to the ancient institutions of the country.

The seventh chapter, consisting of ninety-two stanzas, gives an account of the arrival of Habib, king of Thimes, to Mecca, upon a representation of Abujahil and the other Koreish chieftains against Mohammed.

The eighth chapter, consisting of one hundred and eighty-eight stanzas, treats of the miracle performed by Mohammed before the king of Thimes, by causing the moon to appear on the horizon in her full orb at the time of occultation.

The ninth chapter, consisting of thirty-five stanzas, relates to another miracle of Mohammed, namely, his converting a foetus into a beautiful damsel, and Habib and his attendants embracing his faith after it.

The tenth chapter, consisting of forty-one stanzas, notices the return of Habib to his country, and his sending a present to Mohammed of some camels, which, on being produced before him, speak to him, addressing him as the messenger of God.

The eleventh chapter, consisting of thirty-seven stanzas, relates to the retirement of Othman ibn Affan, his wife Rakiah, and several other members of Mohammed's family, into Abyssinia, to avoid the persecution of Abujahil; and the ineffectual attempt of the latter to prevail on Najashi, the king of that country, to deliver them up to his envoys.

The twelfth chapter, consisting of seventy-two stanzas, relates to the confession of the faith by a deer which Mohammed had released from the snares of a hunter.

The thirteenth chapter, consisting of seventeen stanzas, relates to Mohammed having caused a date tree to blossom and bring forth fruits in an instant, in order to convince an Arab of the truth of his mission.

The fourteenth chapter, consisting of thirty-nine stanzas, relates to the solemn league made by the Koreish against the Hashemites and the family of Abdul Mutalib, engaging themselves to have no communication whatever with them. It also notices the defeat of the Persians by the Romans (Roomi), which is said to have occurred in the eighth year of Mohammed's mission, and verified a prophecy he had made.

The fifteenth chapter, consisting of twelve stanzas, relates to the conversion of an Arab named Husein, in consequence of the idol in the Kaba having saluted Mohammed as the prophet of God in his hearing, as he had demanded by way of proof.

The sixteenth chapter, consisting of sixteen stanzas, notices the death of Abu Talib and Khadija; the former is said to have allowed Mohammed to whisper the creed in his ear as he was drawing his last breath.

The seventeenth chapter, consisting of thirty-five stanzas, treats of Mohammed's retreat to Tayifa after the death of his uncle

and wife; his reception there at the house of Abdul Alib, a Koreish, who afterwards raised an outcry against him, and caused him to be pelted with stones; and his flight to the mountains, where he was ministered to by angels.

The eighteenth chapter, consisting of twelve stanzas, relates to Attas ibn Rabia, a Christian of Nineveh, who having gone to Mohammed's place of retreat, and heard him discourse about the prophet Jonas, believed on him.

The nineteenth chapter, consisting of forty-three stanzas, relates to the profession of Islam by certain of the Genii, who heard Mohammed read the Koran, after the evening prayer, in the valley of al Nakkla, during the time of his retreat to Tayif.

The twentieth chapter, consisting of thirty stanzas, treats of Kama, grandson of Iblis, who had his toes shackled together by Ali, and was afterwards released at the intercession of Mohammed.

The twenty-first chapter, consisting of eighteen stanzas, gives an account of an entertainment given by Mohammed, at which he wrought a miracle by multiplying the loaves.

III.—The Hijarat Kanda is divided into the following forty-seven chapters:

The first chapter, consisting of sixty-five stanzas, relates to the propagation of Islamism in Medina, through the instrumentality of certain inhabitants of that city, who having been on a pilgrimage to Mecca, had had an interview with Mohammed, and had sworn fidelity to him.

The second chapter, consisting of fifty-five stanzas, treats of the oath which the Medinese took to be faithful to Mohammed, and defend him from all attempts of Abu jahil and his partisans.

The third chapter, consisting of one hundred and fourteen stanzas, relates to the proceedings of a council held by the Koreish, whereat it was determined to kill Mohammed, and the flight of Mohammed from Mecca to Medina, eluding the close and vigorous pursuit of his adversaries.

The fourth chapter, consisting of forty-six stanzas, states that Abu Bekr being bitten by a snake as he was watching by the side of Mohammed in his retreat, the latter cured him by applying his spittle to the bite.

The fifth chapter, consisting of fifty stanzas, treats of Surakat, who pursued Mohammed at his flight, by desire of Abu jahil, but was obliged to give up his undertaking, in consequence of the feet of the horse on which he rode having stuck fast to the ground and so prevented him from proceeding.

The sixth chapter, consisting of twenty-six stanzas, relates to the conversion of a shepherdess, named Ummi Mahubat, at whose cottage Mohammed had put up in his flight, and wrought a miracle by causing a barren ewe to yield milk.

The seventh chapter, consisting of sixty-six stanzas, contains an account of Mohammed's entry into Medina, and his magnificent reception by the people of that city.

The eighth chapter, consisting of eighty-four stanzas, relates to a Jew, named Kabukha, who became a convert to Mohammed's doctrines by accidentally discovering in the scriptures the passage which predicted his mission.

The ninth chapter, consisting of fifteen stanzas, relates to a miracle wrought by Mohammed, by feeding thirty guests with the food prepared only for two, and thereby converting them to his faith.

The tenth chapter, consisting of twenty-five stanzas, gives an account of the conversion of Uhuban, a shepherd, which was occasioned by a tiger telling him, on his expressing his surprise at hearing it speak, that this was less a cause for just surprise than the unbelief of the people.

The eleventh chapter, consisting of sixty-one stanzas, contains an account of Salman the Persian, who in his younger years embraced Christianity; but during his travels in Syria, having been informed by the learned men there, that a prophet was expected to arise in Arabia, who should establish the religion of al Forkhan, repaired thither, and meeting with

Mohammed, soon discovered him to be the person he sought, and believed on him.

The twelfth chapter, consisting of twelve stanzas, relates to the circumstance of Mohammed and his followers turning their faces towards the Kaba of Mecca when they prayed, instead of the temple of Jerusalem as they hitherto did.

The thirteenth chapter, consisting of twenty-nine stanzas, relates to the story of a wolf, which came to the Kaba, and in the hearing of the Koreish who were assembled there, declared that Mohammed was an incarnation of the divine ray (Noor) and that he was sent by God into the world to establish the true faith.

The fourteenth chapter, consisting of forty-seven stanzas, treats of the expedition of Baddhan against the tribe of Kana and the Koreish, who submitted.

The fifteenth chapter, consisting of two hundred and twenty stanzas, is occupied with an extravagant account of the nuptials of Fatima, daughter of Mohammed, with her cousin Ali.

The sixteenth chapter, consisting of fifteen stanzas, relates to the expedition of Zeebul-bahar.

The seventeenth chapter, consisting of twenty stanzas, treats of the battle of Boath.

The eighteenth chapter, consisting of forty-one stanzas, states that Mohammed, hearing that a rich caravan belonging to the Koreish was on its way to Syria, marched with his troops to intercept and plunder it, but it passed the place before his arrival, and he returned to Medina, leaving only a part of his troops to wait its return from Syria.

The nineteenth chapter, consisting of fifteen stanzas, describes the attack and plunder of the caravan by Mohammed's troops in the valley of Nakhula, half way between Mecca and Tayif.

The twentieth chapter, consisting of two hundred and fifty-six stanzas, contains an account of the victory gained by Mohammed over the Meccans headed by Abu Safian, in the valley of Badr.

The twenty-first chapter, consisting of fifty-seven stanzas, notices the hostility of the Jews of the tribe of Kainoka to the propagation of Islam, and their reduction and expulsion from the country by Mohammed.

The twenty-second chapter, consisting of twelve stanzas, relates to the reduction of the tribe of Bani Solemu, which resided at Hudri and the plunder of their goods by Mohammed.

The twenty-third chapter, consisting of twelve stanzas, contains an account of Mohammed's expedition to Nasud; the reduction and conversion of the tribe of Ghatfan, which lived there; and the plunder of a caravan of Meccans trading at Irak.

The twenty-fourth chapter, consisting of forty stanzas, relates to the expedition of Khaibar, and the destruction of Abirabik.

The twenty-fifth chapter, consisting of twenty stanzas, notices the birth of Hasein.

The twenty-sixth chapter, consisting of eleven stanzas, treats of an entertainment given to Mohammed at the house of Abu Talha, where he performed a miracle by feeding eighty fellow guests with three loaves.

The twenty-seventh chapter, consisting of two hundred and sixty-eight stanzas, contains an account of the battle of Ohud, wherein Mohammed was very near losing his life, and his uncle Hamea was slain.

The twenty-eighth chapter, consisting of twenty-four stanzas, relates to the interview between Mohammed and Mahbat at Amru; the latter's advice to Abu Sofian to desist hostilities against Mohammed, which he disdainfully rejected, and the capture and execution of Asa, a spy.

The twenty-ninth chapter, consisting of seventy-one stanzas, gives an account of Kaab ibn al Ashraf, a Jew, who was a most bitter enemy to Mohammed, and opposed the establishment of his new religion to the utmost of his power.

The thirtieth chapter, consisting of seventeen stanzas, relates to the siege and capture of the fortress of the Jews of

the tribe of al Nadr, by Mohammed, who allowed them to depart to Syria and Khaibar, leaving all their goods and arms.

The thirty-first chapter, consisting of eighteen stanzas, treats of Mohammed's expedition to Bedr to meet the hostile Koreish, according to their challenge.

The thirty-second chapter, consisting of twenty stanzas, notices the birth of Hussein.

The thirty-third chapter, consisting of one hundred and seven stanzas, relates to the expedition of Mohammed against the tribe of Ghatfan.

The thirty-fourth chapter, consisting of ten stanzas, relates that Mohammed caused the date trees of Saihr to yield an abundant crop, in order to enable him to satisfy some Jewish creditor.

The thirty-fifth chapter, consisting of sixty-one stanzas, relates to the expedition of Mohammed against the tribe of Mustalie and his conquest over them.

The thirty-sixth chapter, consisting of eighty-three stanzas, relates to the expedition of Mohammed against the tribe of Kendah.

The thirty-seventh chapter, consisting of one hundred and eighty-three stanzas, relates that the forces of the Koreish and the tribe of Ghaftan, confederated with the Jews of al Nadhir and Koreidha, besieged Medina, but were driven away by a piercing cold east wind.

The thirty-eighth chapter, consisting of fifty-six stanzas, relates to the destruction of the tribe of Bani Koreila.

The thirty-ninth chapter, consisting of nine stanzas, notices the institution of Haji, and the profession of Islamism by Loomr and the rest of the tribe of Sahud at Honein.

The fortieth chapter, consisting of twenty-nine stanzas, describes the marriage of Mohammed with Zeinab.

The forty-first chapter, consisting of twenty-five stanzas, relates to the miraculous speaking of a camel.

The forty-second chapter, consisting of twenty-one stanzas,

relates to Mohammed's causing it to rain at the entreaty of Salykkhn.

The forty-third chapter, consisting of nineteen stanzas, states the restoration of the sight of a blind man by Mohammed.

The forty-fourth chapter, consisting of eighteen stanzas, relates to the revealing of the 58th chapter of the Koran, at the instance of Khawla, wife of Aws ibn Al Samat, who being divorced by her husband by saying "Thou art to me as my mother," came to ask Mohammed's opinion whether they were necessarily obliged to a separation.

The forty-fifth chapter, consisting of one hundred and thirteen stanzas, relates to Mohammed's expedition to Umra.

The forty-sixth chapter, consisting of one hundred stanzas, treats of the hostilities of Salma.

The forty-seventh chapter, consisting of seventeen stanzas, gives an account of the tribe of Urani.

Description of New or little known species of Reptiles found in Ceylon, by E. F. KELAART, M.D., F.L.S.

ORDER. SAURA.

TRIBE. GEISSOSAURA.

FAM. ACONTIAS, (ACONTIADÆ.)

Head small, shielded. Muzzle conical. Rostral rather large, cup-shaped, internasal short, frontal large, frontoparietal none, interparietal triangular, moderate. Eyes distinct. Eyelids, lower well developed, upper small or wanting. Nostrils in the middle of the side of the rostral shield, with a slit to its hinder edge. Tongue scaly, imbricate, nicked at

the point. Ears very small or hidden. Femoral pores none. Body cylindrical. Limbs 4, very short, or none. Scales smooth.—*Gray*.

GENUS. *NESSIA*. *Gray*.

Muzzle conical. Ears very small, dotlike. Body cylindrical, elongate, sides rounded. Scales smooth. Legs 4, very short, far apart. Toes 3-3, subequal, clawed.

NESSIA BURTONI? *Gray*.

Dark rufous-brown above, and spotted longitudinally with darker brown spots. Dark grey beneath, clouded and indistinctly spotted. Tail cylindrical, rounded at the end, and coloured and spotted like the body. Limbs 4, very small, each with 3 subequal toes.

Length $5\frac{1}{2}$ inches.

Habitat. Allagalla (3000 feet.)

The only specimen which we have examined is one obtained from vegetable soil in a Coffee Estate under the superintendence of Dr. Marshall.* We are informed that this reptile is common at Ambegammoa.

If our identification is correct, it would appear probable that the only specimen in Europe, found in the Army Medical Officers' Museum at Fort Pitt, was sent from Ceylon. The specimen was named after Staff Surgeon Burton, who was the Curator of the Museum when Dr. Gray visited that establishment.

GENUS. *ACONTIAS*. *Cuvier*.

Head conical. Nostrils lateral. Internasal broad, 6 sided, frontal large, 6 sided, frontonasals and frontoparietals none; interparietals small, triangular, parietal moderate. Tongue flat, scaly, nicked at the tip. Teeth conical, blunt. Palate not toothed, with a longitudinal groove. Eyes very small. Upper eyelid wanting, lower short, scaly, opaque. Ears hidden under the skin. Body cylindrical, elongate. Scales

* We have since received several smaller specimens from Kaduganava.

smooth. Limbs none, exerted. Tail cylindrical, short rounded at the end.—*Gray.*

.. ACONTIAS LAYARDI. n. s., nobis.

Light olive, and spotted longitudinally with brown spots, paler beneath.

Length of young 4 inches.

Habitat. Soil of the Cinnamon Gardens of Colombo.

The form of this reptile is distinguished from that of *Nessia*, above described, by the absence of limbs; in other respects it is very like the outline characters of *Nessia*. Mr. Layard procured us the specimens (apparently young) of this curious lizard.

The only other species described in Gray's Catalogue, is one from the Cape of Good Hope.

Mr. Blyth writes that he has described an allied Genus, from Rangoon, by the name of *OPHISEPS*.

FAM. UROPELTIDÆ.

ROUGH TAILS. DAPAT-NAYA, *Sing.*

Head conical, compressed, shelving and acute in front, flat above, behind. Crown covered with regular shields. Rostral produced, moderate, convex, horny, subtriangular, erect, produced, and acute behind. Nostrils roundish, lateral, simple, in the middle of the front of an erect subtriangular band-like nasal. Internasal none, frontonasal subtriangular, truncated below, contiguous above, frontal and frontoparietal distinct. Nape scaly. Labial shields 4 distinct. Eyes distinct, lateral, in the middle of the front of an erect eye-shield, and covered by the shield without any eyelids. Eyebrow shield none. Tongue elongate, flat, forked at the tip. Body cylindrical. Scales 6 sided, smooth, those of the hinder part and above the tail sometimes 2-keeled. Vent with three scales in front. Tail cylindrical, obliquely truncated above.

This family is intermediate between the Lizards and the Snakes; following Cuvier and others, I was induced to refer it to the latter order, and therefore did not insert it in the Synopsis

of the Families : but on re-examination and comparison with the various modifications presented by the genera of Typhlopsidæ, I have been induced to place it in the order of Lizards. Cuvier seems to have been in doubt, for though he placed the genus with the Snakes, he also regarded the species as a section of the Typhlopses. Schlegel names the group Pseudo Typhlops.—(Gray's *Synopsis*.)

This curiously formed family of Reptiles is known in the Island as *Dapat Nayas*, or double headed snakes. The natives consider them poisonous, but our experience of their habits makes us believe that they are perfectly harmless, and that they are timid creatures, seldom making their appearance aboveground; living chiefly in ant-hills or dunghills, sometimes also several feet deep in rich loamy soil. They feed on ants, small earth-worms and larvæ of insects.

It appears from Dr. Gray's Catalogue, that in the Museums of Europe there are only three species, and of these three only one is from Ceylon, viz., *Silaboura Ceylonicus*,* many specimens of which we have found in the Kandyan Hills since our work on the Fauna of Ceylon was published. We have also, since the publication of that work, collected four other species, making in all six distinct undescribed or new species of Rough Tails (*Uropeltidæ*) in the Island of Ceylon, which we shall now describe in a connected form.

Dr. Gray subdivides the family into three groups, and we have added a fourth, to admit of two species, only one of which we have described in the Prodrômus.

GENUS. RHINOPHIS. Hempr.

Tail obliquely truncated, upper part rather convex, covered with a small oblong shield, lower edge rounded, simple, rather produced. Head acute, tapering in front. Vent shields in one marginal row.

* Vide Prodrômus Faunæ Zeylanicæ.

RHINOPHIS BLYTHII. n. s., nobis.

Dark yellowish brown above, with darker brown spots on the anterior third of scales. Paler beneath. Rostrum yellow. Sides of nape and neck waved with angular marks of a yellowish hue; yellow spots on each side of vent. Tail thick, slightly truncated, conical, upper part near termination has a small subtriangular nearly smooth shield, lower surface covered with broad scales. Vent shields 1-2.

Length 16 inches, circumference of the middle of body 1. 3-10 inches. Tail and neck rather thicker.

Habitat. Mountains of Ceylon.—Three specimens found 3 or 4 feet below the surface soil of Coffee plantations.

GENUS. *UROPELTIS*, (part). *Cuvier.*

Tail obliquely truncated, flattish, and covered with a flat roundish radiating granular shield, lower edge rounded, the under side of tail with 6 series of small scales.

UROPELTIS SAFFRAGANUS. n. s., nobis.

Head dark olive brown, the rest of the upper surface of a blackish brown colour, with bluish bronze reflections. Beneath white. A pale white spot on each side of neck near the head. Tail deeply truncated and nearly covered with a large flat circular blackish granular shield, white and rounded beneath, and lower part covered with five series of small scales, the central series broader than the lateral ones. Vent shields 1-2. The neck and forepart of the body much thicker.

Length 9 inches.

Habitat. District of Saffragam, near Adam's Peak.

The only specimen of this species, which we have as yet seen, is one sent to us by Mr. Barnes De Zilva from Ratnapoora.

UROPELTIS GRANDIS. n. s., nobis.

Above dark brown with a bluish metallic lustre, anterior part of each scale with a blackish spot. Beneath of a pale yellow colour, spotted brown on the anterior part of scale. Head of a light olive brown colour. Tail short, abruptly

truncated; the truncated surface entirely covered with a large circular, granular shield. Vent scales 1-2.

Total length superiorly, 1 foot 7 inches. Inferiorly, 1 foot 8 inches. Tail shield nearly the size of a shilling piece. Head 8-10 inch in length.—Greatest circumference $2\frac{1}{2}$ inches, near the neck. *Habitat.* Southern Province.

The only specimen we have seen of this very large Rough Tail, is one procured by Mr. Balkhuysen of the Colonial Medical Service, from Kerinday near Matura.

UROPELTIS PARDALIS. n. s., nobis.

Head small, dark olive. Upper parts black with beautiful bluish bronze reflections, irregularly spotted white. Beneath yellowish white, marked with large and small black spots, variously shaped; some pale eyed. Tail very short, obliquely truncated and with a large flat orbicular granular shield. Length, $6\frac{1}{2}$ inches; circumference $\frac{3}{4}$ inch.

Habitat. Matura. We are indebted to the Rev. Mr. Ondaatje for the only specimen we have examined of this species. The black spots on the lower parts occupy more than one scale, generally two or three contiguous scales; and they are placed without any order in various directions. The chin and throat immaculate.

GENUS. *DAPATNAYA. n. g.*

Tail obliquely truncated, upper part and tip covered with a large semiconical granular shield. Vent shields 1-2.

DAPATNAYA LANKADIVANA. n. s., nobis.

Above dark brown, beneath paler. Scales with pale margins. Head yellowish in some. Rostrum yellow. Shield of tail sloping down to the lower surface. Vent scales yellow; in some the spot extends beyond the vent.

Length, from 1 to 2 feet.

Thickness nearly the same throughout, about 1 inch.

Habitat. Common at Trincomalie, and in the Kandyan Province. Found 2 or 3 feet under ground, and in ant-hills. The young is of a dark olive brown colour.

DAPATNAYA TREVELYANII. n. s., nobis.

Black above, margin of scales pale. White beneath, with longitudinal series of black spots, formed of central spots on each scale. A line of triangular white spots, with their apices directed upwards, along each side. Vent white. A white line rising from this spot runs over the tail, and another whitish line extends forwards from the vent for about $\frac{3}{4}$ inch. Tail short, and nearly covered with a white semi-conical granular shield, tip ridged, a little produced.

Length from 12 to 18 inches; nearly of the same thickness throughout, about 1 inch.

Habitat. Kandyan Hills, 3 or 4 feet under ground, and in the soil near the roots of Coffee trees and Cane.

Some of the young are of a bluish colour, others are spotted on the back.

TRIBE. NYCTISAURA.

FAM. GECKOTIDÆ.

BOLTALIA.

Toes free, ovate and dilated towards the end, with two series of straight narrow nearly transverse closely adpressed plates beneath, divided by a deep narrow groove, last joint compressed, free, rather exerted, clawed. Thumb dilated, and with a compressed last joint, like the toes, but clawless. Back with granular scales and a few scattered larger granules. Sides simple. Tail rather depressed, tapering, ringed, with a central series of broad scales beneath.

BOLTALIA SUBLEVIS. Gray.

Above dark rufous brown; beneath sulphureous yellow; sometimes clouded with black. Back granular, with two or more longitudinal lines of larger granules on each side. Scales of chin large. Tail armed with adpressed spines in rings. Femoral pores in male only, from 16 to 20.

Length $5\frac{1}{2}$ inches.

Habitat. The Central and Southern Provinces.

This Gecko we obtained in great abundance in Galle; we

have also seen a few at Kaduganava, after the publication of the *Prodromus*. It is rarely seen on the walls of houses, generally on trees, and on the roofs of houses. The rufous brown colour changes at times into a dark grey, mottled with black. When immersed in spirits the rufous brown colour is entirely lost.

This Gecko has been mistaken for *Hemidactylus Leschenaultii*, and also, for a large variety of *H. frenatus*, but the clawless compressed last joint of the thumb will distinguish this Lizard from others. From *Peripia Peronii* it is sufficiently removed by its granular back and armed tail. This Lizard cannot be confounded with *Hemidactylus Coctæi*. It has very little resemblance to it, and the thumb of *H. Coctæi* is clawed. (*Vide Prodromus Faunæ Zeylanicæ.*)

ORDER. BATRACHIA.

SUB-ORDER I. SALIENTIA.

FAM. RANIDÆ. *Frogs.* ATTY KITTA. *Sing.*

GENUS. RANA. *Linn.*

Skin smooth, hinder extremities very long, formed for leaping; toes palmated, teeth in the upper jaw, and in the palate.

RANA KANDIANA. *n. s., nobis.*

Beautiful grass green above, beneath orange red; inside of limbs slightly vermiculated with yellow. Skin of upper parts rather rough, coriaceous; a white granular ridge on each side. Length $3\frac{1}{2}$ inches.

Habitat. Kaduganava, Kandyan Province.

We have only seen two specimens of this rare frog.

FAM. HYLIDÆ. *Tree Frogs.* GHAS ATTY KITTA. *Sing.*

GENUS. LIMNODYTES. *Dum. et Bib.*

Tongue long, narrowed in front, widened, forked, free behind; the teeth on the vomer forming two groups, between

the internal openings of the nostrils; tympanum distinct; Eustachian tubes middling, fore fingers free; toes completely or partly webbed; subdigital disks slightly dilated; process of the first os cuneiforme blunt, very minute; males with vocal sacs; sacral transversal processes not dilated.

LIMNODYTES MUTABILIS. n. s., nobis.

Upper parts very changeable; generally, of a bright green above and yellow beneath; a red line on the outer edge of limbs; sometimes of a dark chesnut on the upper parts, and variegated with yellow and green on the sides and limbs.—Of a more slender form than the common tree Frogs *Polypedates cruciger*, and *P. Leucomystax*. About 2 inches long.

Habitat. Cinnamon gardens; Cotta near Colombo. If not mistaken, we have also seen this elegant frog at Nuwera Ellia. In spirits the colours fade into a pale leaden hue; the red streak on the limbs disappears last.

LIMNODYTES MACULATA. n. s., nobis.

Brown, spotted and streaked with black or dark brown; beneath pale, seldom spotted. About $1\frac{1}{4}$ inch long.

Habitat. Galle, Southern Province.

We believe this species to be generally distributed, but have before mistaken it for the young of *Polypedates Leucomystax*.

FAM. BUFONIDÆ. *Toads. GAMEDEA, Sing.*

GENUS. *ENGYSTOMA. Gray.*

No tympanum nor parotid visible externally; an oval body; the head and mouth very small, and feet but slightly palmated.

ENGYSTOMA RUBRUM. n. s., Jerdon.

Synon. Engystoma cinnamomea. m. s.

Cinnamon red, spotted black; limbs also spotted; belly whitish. Length (young) $1\frac{1}{2}$ inch.

Habitat. Southern India (?) Ceylon.—
Galle, 17th May, 1853.

Synopsis of Ceylon Reptiles, by E. F. KELAART, M.D.

In presenting to the Asiatic Society a more complete Synopsis of Ceylon Reptiles, which the continued kindness of friends in various parts of the Island has enabled me to form, I have much pleasure in expressing my best thanks to the Members of the Asiatic Society of Ceylon, and to Sir George Anderson, Dr. Fergusson, F.M.O. and the Hon'ble Mr. MacCarthy, Colonial Secretary, for the facilities they have afforded me in my further researches in the Natural productions of the Island.

The joint labours of Mr. Edgar Layard and myself have nearly completed the examination of the Mammals, Birds, Shells, Reptiles and Insects of this Island. The fresh water Fishes are now engaging my attention, and any specimens of this Class will be thankfully received. Dr. Schmarda, Professor of Zoology of the University of Prague, is now on a visit to the Island for the chief purpose of examining the Infusoriæ, and Professor Harvey of Trinity College, Dublin, is also, we believe, at present engaged in examining into the Echinodermata and Crustacea of the Island, so that it may be hoped, it will not be very long before the neglected Fauna of Ceylon is completely worked out.

Synopsis of Ceylon Reptiles.

ORDER. SAURA. *Lizards.*

SUB-ORDER. I. LEPTOGLOSSÆ.

Slender-tongued Lizards.

FAM: MONITORIDÆ. *Monitors.*

- | | | |
|---------------|--------------------------|---------------------------------|
| 1 Monitor | <i>Dracæna, Gray.</i> | Guana. Talla Goya, Sing. |
| 2 Hydrosaurus | <i>Salvator, Wagler.</i> | Water Guana. Cabara Goya, Sing. |

FAM: SCINCIDÆ. *The Scincs.*

- | | | |
|---------|------------------------|----------------------|
| 3 Riopa | <i>punctata, Gray.</i> | Puchec Bramin, Port. |
|---------|------------------------|----------------------|

- 4 Riopa Hardwicki, *Gray.* Puchee Bramin, *Port.*
 5 Mabonia elegans. (?) *Gray.* do.
 6 Taliqua rufescens, *Gray.* Large do.

FAM: ACONTIADÆ.

- 7 Nessia Burtoni. (?) *Gray.* Ground Bramin.
 8 Acontias (?) Layardi, *n. s., nobis.* Layard's do.

FAM: TYPHLOPSIDÆ. *Typhlops.*

- 9 Argyrophis Bramicus, *Dawl.* Slow worm.
 ———— 2 varieties.

FAM: UROPELTIDÆ. *Rough tails, or False snakes.*Dapatnaya, *Sing.*

- 10 Uropeltis grandis, *n. s., nobis.*
 11 Uropeltis Pardalis, *n. s., nobis.*
 12 Uropeltis Saffragamus, *n. s., nobis.*
 13 Rhinophis Blythii, *n. s., nobis.*
 14 Dapatnaya Lankadivana, *n. s., nobis.*
 15 Dapatnaya Trevelyanii, *n. s., nobis.*
 16 Siluboura Ceylonicus, *Gray.*

SUB-ORDER II. PACHYGLOSSÆ.

*Thick-tongued Lizards.*FAM: GECKOTIDÆ. *The Geckoes.*Cheechas, *Port.* Hoona, *Sing.*

- 17 Hemidactylus trihedrus, *Lesson.* The triangular tubercled Gecko.
 18 Hemidactylus maculatus, *Dum.* The spotted do.
et Bib.

- 19 Hemidactylus Pieresii, *n. s., nobis.* Pieres' Gecko.
 20 Hemidactylus Coctœi, *Dum. et Bib.* Cocto's do.
 21 Hemidactylus frenatus, *Schlegel.* The streaked Gecko.
 22 Hemidactylus Leschenaultii, (?) Leschenault's do.
Dum. et Bib.

- 23 Boltalia sublaevis, *Gray.* The Boltalia.

- 24 *Peripia Peronii*, *Dum. et Bib.* Peron's Gecko.
 25 *Gymnodactylus* (?) *Kandianus*, The diurnal Gecko.
n. s., nobis.

FAM: AGAMIDÆ. *The Agamas.*

Blood-suckers, *Vulg.* KattooSah, *Sing.*

- 26 *Sitana Ponticereana*, *Cuvier.* The Sitana.
 27 *Lyriocephalus scutatus*, *Wagler.* Lyre-headed Lizard.
 28 *Ceratophora Stoddartii*, *Gray.* The needle-nosed Lizard.
 29 *Salea Jerdonii*, *Gray.* Dr. Jerdon's Salea.
 30 *Calotes Ophiomachus*, *Gray.* Red headed Green Lizard.
 31 *Calotes Rouxi*, *Gray. Blyth.* } Green Lizard.
 vel C. Viridis, Gray. apud nos. }
 32 *Calotes mystaceus*, *Dum. et Bib.* Red spotted Green Lizard.
 33 *Calotes versicolor*, *Dum. et Bib.* The common Blood-sucker.

FAM: CHAMELEONIDÆ. *Chameleons.*

- 34 *Chameleo vulgaris*, *Daud.* The true Chameleon.

ORDER. OPHIDIA. *Serpents.*

Cobras, *Port.* Saroopeya, *Satta, Sing.*

Innocuous Serpents.

FAM: BOIDÆ.

BURROWING.

- 35 *Cylindrophis maculata*, *Wagler.* The red and black netted Snake.

TERRESTRIAL.

- 36 *Python molurus*, *Gray.* The Rock Snake.

FAM: COLUBERIDÆ. *Bonaparte.*

TERRESTRIAL.

- 37 *Calamaria Seytale* ?
 38 *Lycodon*, 2 or more species.
 39 *Xenodon purpurascens*, *Schlegel.* var.
 40 *Coluber Korros*, *Reinwardt.*

ARBORIAL.

- 41 *Dipsas multimaculata* (?) *Schlegel*.
 42 *Dryinus Prasinus*, *Reinwardt*. The Whip Snake.
 D. nasutus 2 or more varieties.
 43 *Leptopthis pictus*, *Gmelin*.
 44 *Leptopthis ornatus*, *Shaw*.
 45 *Leptopthis* sp.

AQUATIC. Deye Naya, *Sing*.

- 46 *Tropidonotus umbratus*, *Daudin*. (var.) Large blackish water Snake.
 47 *Tropidonotus stollatus*, *Linn*. The speckled do.
 48 *Tropidonotus schistosus*, *Daud*. The olive brown do.
 49 *Cerberus cinereus*, *Cuvier*. The black do.

Venomous Serpents.

FAM: VIPERIDÆ. *Vipers*.

TERRESTRIAL.

- 50 *Bungarus candidus*, *Linn*.
 51 *Naya lutescens*, *Daudin*. var. Cobra de Capello.
 ——var. *Nigra*.

ARBORIAL.

- 52 *Trigonocephalus Hypnale*, *Wagler*. Caravilla.
 53 *Trimesurus gramineus*, *Shaw*. The green Caravilla.
 54 *Trimesurus Ceylonensis* (?) *Gray*. *apud Gray*.
 55 *Megaera trigonecephala*, *Wagler*. Palagolla.
 56 *Daboia elegans*, *Gray*.
 57 *Daboia Russellii*, *Gray*. } Polanga.

N.B.—There are about six or eight more Ceylon Snakes, which have not yet been identified.

ORDER. CHELONIA. *Tortoises*.

Cowdoo, *Port*. Ibba, *Sing*.

FAM: TESTUDINIDÆ.

- 58 *Testuda Indica*, *Gmelin*. The large land Tortoise.
 59 *Testuda stellata*, *Schweig*. The yellow starred do.

60	<i>Emys trijuga</i> , var. <i>Schweig.</i>	Marsh Tortoise.
61	<i>Emys Seba</i> , <i>Gray</i> , apud <i>Blyth</i> .	do.
62	<i>Emyda punctata</i> . <i>Gray</i> .	River Tortoise. Keeree Ibba. <i>Sing.</i>

63 *Caretta imbricata*, *Gray*. Sea Turtle. Kokoeloo koosoomba, *Sing*.
64 *Chelonia virgata*, *Schweig*. Edible do. Gal koosoomba, *Sing*.

67	<i>Rana cutipora</i> , <i>Dum. et Bib.</i>	Large green bull Frog.
68	<i>Rana Malabarica</i> , <i>Dum. et Bib.</i>	The green spotted bull Frog.
69	<i>Rana Bengalensis</i> , <i>Gray.</i>	The small green do.
70	<i>Rana Tigrina</i> , <i>Daudin.</i>	The golden Frog.
71	<i>Rana Newera Elliana</i> , <i>nobis.</i>	The blackish Frog.
72	<i>Rana Kandiana</i> , <i>nobis.</i>	The red bellied Frog.
73	<i>Rana Leschenaultii</i> (?) <i>Dum. et</i>	Leschenault's Frog.
	<i>Bib. apud Blyth.</i>	

25. Priests, it is improper to suspend those who perform their duty. He who does so is guilty of Dukkata. It is improper, priests, not to suspend those who neglect their duty. He who does not place such under suspension is guilty of Dukkata.

Five reasons are assigned why a pupil may be placed under suspension: If he does not manifest proper affection, attachment, and respect to his preceptor; or if he be without modesty of deportment, or neglect his studies. Under these circumstances if the preceptor suspends him he acts correctly, but if he neglect to suspend him he is culpable.

There were at that time priests of more than ten years standing who were unwise and unlearned, and who yet received other priests as pupils. In consequence of this, in some instances, the preceptor was ignorant and the pupil learned, and much discontent arose: both people and priests complaining of its impropriety. This being brought to the notice of Budha, he investigated the circumstances, reproved the offenders, and decreed:

26. Priests, a person who is unwise and incompetent shall not receive a resident pupil. I permit wise and competent priests, of ten or more years standing, to receive resident pupils.

Some of the superiors (*upajjhāyo*) and preceptors (*āchariyo*) of the priests having left their former place of residence, and others having left the priesthood or joined other fraternities, and some having died, the priests did not know how far they were released from the duty of attending upon them. The subject was brought to the notice of Budha, who decreed:

27. Priests, for these five reasons a priest is released from the duty of living with his *upajjhāyo* (superior). If the superior remove to another place; if he leave the priesthood; if he die; if he join some other fraternity; or if he give leave of absence. For any of these reasons a priest is released from the duty of living with his superior.

Priests, for these six reasons a priest is released from the

duty of living with his preceptors (ācharīyo). If the preceptor remove to another place: if he leave the priesthood; if he die; if he join some other fraternity; if he give leave of absence; or if the pupil return to the residence of his superior. For any of these reasons a priest is relieved from the duty of living with his preceptor.

Budha then defined the qualifications necessary to be possessed by those who became superiors, preceptors, or who have sāmaneros (novices) under them.

1. He should be perfect in moral virtue (i. e. without need of further instruction or advice respecting virtue), in meditation, in wisdom, in deliverance from desire, and in the knowledge resulting from that deliverance: he must also be able to establish others in the same virtues and excellencies.

As there are qualities possessed only by the Rabats, or those delivered from the bonds of existence, and as for many centuries no priest has attained to this perfection, the above rule is not binding at the present time, but the following qualifications are still required: He must be orthodox, modest and grave in his deportment, diligent, wise, able to instruct his pupils and resolve their doubts, well acquainted with the rules of ecclesiastical discipline, free from ecclesiastical censure, and of ten or more years standing in the priesthood.

One who had been a member of another body of teachers, became a Buddhist priest: but disputing the doctrines taught by his superior, he left the priesthood and returned to the society to which he formerly belonged. Afterwards he came back and requested ordination again as a Buddhist priest. The case being brought before Budha, he decreed:

28. Priests, if any one who has been a member of another body of teachers, shall become a priest, and disputing the doctrines taught by his superior, unite himself again to the body to which he formerly belonged: should he return he must not be re-admitted to Upasampadā.

Should any one, formerly a member of another body of teachers, have a desire to embrace this doctrine and discipline, to become a priest, and receive Upasampadā, he shall be received on probation for four months. The permission shall be granted as follows :

First, having caused the head and beard to be shaven and a yellow garment to be put on, the candidate shall remove his garment from one shoulder, worship the feet of the priests, and kneeling down say, with uplifted hands, I take refuge in Budha, I take refuge in Damma (his doctrine), I take refuge in the Sangho (the priesthood). A second time I take refuge in Budha, I take refuge in Damma, I take refuge in the Sangho. A third time I take refuge in Budha, I take refuge in Damma, I take refuge in the Sangho.

Then, priests, the candidate shall come to the Sangho, remove his garment from one shoulder, worship the feet of the priests, and kneeling down say with uplifted hands, Lords! I, N., have been a member of such a body of teachers. I desire to receive this doctrine and discipline, and to obtain Upasampadā. Lords! I request four months' probation: a second and a third time he is to make this request.

A fluent and learned priest shall then make this known to the Sangho, saying, Hear me, my Lord the Sangho, such a person, formerly a member of another body of teachers, desires to receive this doctrine and discipline, and to obtain Upasampadā. He requests to be admitted to a probation of four months. If it be a convenient time for the Sangho, the Sangho will admit this person, formerly a member of another body of teachers, to a probation of four months. This is the proposition.

Hear me, my Lord the Sangho, this person, formerly a member of another body of teachers, desires to receive this doctrine and discipline and to obtain Upasampadā: he requests to be admitted to a probation of four months. The Sangho grants a probation of four months to this person, formerly a

member of another body of teachers. If any venerable one consents to grant four months probation to this person, formerly a member of another body of teachers, let him remain silent. If he do not consent let him speak. Probation for four months is given by the Sangho to this person, formerly a member of another body of teachers. The Sangho consents and therefore is silent, and thus I receive it.

Budha then explains the reason of this proceeding, arising from the habits of these teachers of other bodies; namely, that they visit the houses for alms at unseasonable hours, (when the women may be sleeping with their persons exposed :) that they resort for alms to places where there are prostitutes, widows and grown up girls, or where there are catamites, or female ascetics; that they are loud and obstreperous in conversation; not careful in the things they ought to be engaged in, are indolent, inquisitive, not under controul, dull in understanding, lose their temper when their doctrines are controverted, and speak against Budha, his doctrines and the priests. He then states that if they continue thus; they ought not to receive Upasampadā at the end of their probation.

He also directs, that if the person who seeks to be admitted on probation be a naked ascetic, the Upajjāyo shall supply him with garments and see to his being shaved. That if an ascetic with clotted hair, a worshipper of fire, seek admission to the priesthood, he may be admitted without probation, as their doctrines are correct respecting the results of moral conduct. And that any one who is of the Sākya race is to have the same privilege, although he may have been a member of any other body of teachers; and that he concedes this to them as being of the same race with himself.

At one period great sickness prevailed in Magadha, especially leprosy (කුට්ඨාන කුට්ඨාන), ulcers (කොටු ගාන්දො, eruptions of various kinds), dry itch (කිලාසො), consumption (කොසො), and epilepsy (අපචාලො); these were named the five diseases. A number of persons sought the aid of the king's physician, offering him the whole of their property, and even to become

his slaves, if he would undertake their cure. The physician replied, that he could not possibly attend to them, his duty to the king, to the royal household, to Budha and his priests, who were placed under his care by the king, occupying the whole of his time. Upon this some of the men determined to join the priesthood that they might obtain the aid of the royal physician. They accordingly went to the priests, were admitted, and received ordination. Being priests the physician prescribed for them, and they were restored to health. After this they left the priesthood. The physician meeting one of them recognized him and said, Were you not a priest? He acknowledged it, and stated that he had been a priest solely to obtain his aid as a physician, and that upon being cured he had left the priesthood. The physician was much displeased, and complained to Budha, requesting him to prohibit persons having these diseases being admitted into the priesthood. Budha soothed his mind with religious discourse, and upon his departure decreed:

29. Priests, it is not proper to admit into the priesthood any person who is affected with the five diseases. He who admits such a person into the priesthood is guilty of Dukkata.

Disturbances having occurred in the provinces, the king of Magadha ordered his troops to quell them. Some of the celebrated warriors thought, If we go delighting in war, we shall commit sin and bring much demerit upon ourselves; by what means shall we escape so as to avoid committing sin and be able to perform good works. The priests are good and virtuous men: if we join the priesthood our object will be accomplished. They accordingly went to the priests, were admitted into the priesthood and received Upasampadā. When the commander of the forces enquired where such and such soldiers were, he was informed that they had become priests. Upon learning this he was much displeased, and reported the case to the king Bimbisāro, stating that such persons ought to be capitally punished, together with those who had admitted them into the priesthood.

King Bimbisāro upon this waited on Budha and said, There are in my kingdom persons destitute of faith and strongly disposed to injure the priests, it will be well for them not to admit into the priesthood any person belonging to the king's forces. When the king was gone, Budha called the priests together, stated the case, and decreed :

30. Priests, no person in the king's pay shall be made a priest. He who admits such a person into the priesthood is guilty of Dukkata.

The noted thief Anguli Malo was admitted into the priesthood. The people seeing him were alarmed and terrified, and fled away to other places. The people generally gave utterance to their extreme dissatisfaction, and the priests reported it to Budha, who decreed :

31. Priests, no outlawed felon shall be admitted into the priesthood : he who admits him is guilty of Dukkata.

The king of Magadha had commanded that no violence should be offered to any of the priests of Budha, as they were holy and virtuous men. On one occasion a thief had been cast into prison : but he breaking out of prison escaped and obtained admission into the priesthood. He was afterwards recognized, but when some persons went to apprehend him they were reminded of the king's command. The people murmured and said, These sons of Sākya are privileged to do what they will with impunity. Why do they admit to the priesthood thieves who have broken out of prison. Upon being informed of this, Budha decreed :

32. Priests, no thief who has broken out of prison shall be admitted into the priesthood : he who admits him is guilty of Dukkata.

Under similar circumstances the following laws were made by Budha.

33. No proclaimed thief shall be admitted into the priesthood : he who admits him is guilty of Dukkata.

34. No person who has been flogged by a judicial sentence shall be admitted into the priesthood : he who admits him is guilty of Dukkata.

35. No person who has been branded by a judicial sentence shall be admitted into the priesthood: he who admits him is guilty of Dukkata.

36. No person who is in debt shall be admitted into the priesthood: he who admits him is guilty of Dukkata.

37. No slave shall be admitted into the priesthood: he who admits him is guilty of Dukkata.

A lad of the goldsmith trade quarrelled with his parents, and going to the Monastery was made a Sāmanero priest. His parents came to the Monastery and enquired of the priests if they had seen such a lad there. They, not being aware of the circumstance, stated that they had not seen him. After further search the boy was found, having been admitted as a novice. The parents loudly complained, affirming that the priests were shameless liars. From this it appears that priests were accustomed to ordain novices on their individual responsibility, without any reference to a Chapter of the Order regularly assembled. The case was reported to Budha, who, to prevent such irregularities, decreed:

38. I direct, priests, that the shaving of the head shall be notified to the Sangho.

(In consequence of this law, whenever a lad is to be received into the priesthood as a novice, the Sangho is to be assembled and the circumstances stated to the meeting, prior to the head of the candidate being shaved.)

There were in Rajagaha 17 children who were friends, Upāli being the principal one. His parents thought much of a profession for him by which he might obtain a livelihood after their death. They thought of his being a scribe, but remembered that writing tires the fingers: then they thought of his being an accountant, but that would be injurious to his chest: were he to become a painter that would try his eyes. They then reflected, that the sons of Sākya were virtuous men; that they were well fed and comfortably lodged, and that it would be desirable to make him a priest. Upāli heard his parents speaking on the subject, and being pleased with

the plan went to his young friends and proposed that they all should become priests. The children replied, If you, Upali, become a priest we also will become priests; and each child requested his parents' permission to join the priesthood. The whole of the parents were pleased with the proposal of the children, and took them to the priests who ordained them as novices and gave them Upasampadā. In the night the children became restless and cried for gruel, and for something to eat, and the priests endeavoured to quiet them without success. Bagawa heard the noise, and enquired the reason of it. Ananda informed him of the circumstances; upon which he assembled the priests, and enquired if they had admitted persons to Upasampadā whom they knew to be under twenty years of age. They acknowledged that they had done so: upon which he reproved them, stating that lads under twenty years of age were not able to endure the hardships connected with being priests, and decreed:

39. Priests, it is not proper to admit to Upasampadā a man who is known to be less than twenty years of age. Whoever admits such a person to Upasampadā is guilty of Dukkata.

A whole family died of an epidemic disease, excepting the father and a male child. They both became priests (the father Upasampadā, the child Sāmanero) and went out together to collect food. When any thing was given to the priest, the child being near him said, Father, give me some! Father, give me some! The people observing this, murmured and said, These sons of Sākya are incontinent. This child has been begotten on a priestess. The other priests, hearing this, reported the case to Budha, who decreed:

40. Priests, it is not proper that a child under five years of age should be admitted into the priesthood: he who admits him is guilty of Dukkata.

A pious and faithful family who ministered to Ananda was cut off by the pestilence, only two male children, under five years of age, being left. These children having been

accustomed to see the priests and minister to them, wept because they did not see them as usual. Ananda was desirous of preserving the children and admitting them into the priesthood, but they were under the prescribed age. He mentioned the case to Budha, who enquired if the children were able to drive away the crows. He replied that they were able. Upon this, Budha assembled the priests, and said :

41. Priests, I permit children under five years of age to be admitted into the priesthood, if they be able to drive away the crows.

The priest Upanando had two Samaneros, who living together polluted each other. The circumstance becoming known, Budha decreed :

42. Priests, two Samaneros shall not be under one person. He who receives two Samaneros is guilty of Dukkata.

Bagawa spent the entire year in Rajagaha, and the inhabitants complained that the place was darkened with the number of priests. Upon this being reported to Budha, he determined to visit Dakkhinigiri, and sent Ananda to inform the priests that as many of them as were inclined might accompany him. They replied, Bagawa has commanded us to remain near our superiors and preceptors ten years. If they go, we will accompany them, otherwise we cannot go. In consequence of this Bagawa had few attendants, and upon his return he decreed :

43. Priests, I direct that fluent speaking and well informed priests shall remain as pupils five years. They who are not fluent speaking shall remain as pupils so long as they live.

The qualifications requisite to free a 'priest of five years' standing from remaining a pupil are; that he be modest and reverent in his deportment; diligent, intelligent, free from ecclesiastical censure, orthodox, learned, wise, well acquainted with ecclesiastical laws, and able distinctly, clearly, and in proper order, to recite the two Pratimokshas.

Bagawa having resided in Rajagaha as long as he thought it advisable, left that place to visit his native city Kapila

Watt'hun, and arriving there abode in a Nigrodha grove. The mother of Rāhula (Goutama's wife prior to his becoming a priest,) said to Rāhula, Your father is come, go and ask for your inheritance. Then Prince Rāhula went to Budha, and standing before him said, Pleasant is your shadow, Samana. Budha then rose from his seat and departed; but Rāhula followed him saying, Samana, give me my inheritance! Samana, give me my inheritance! Then Budha called Sāriputta and said, Sāriputta, admit Prince Rāhula into the priesthood. Sāriputta enquired in what manner he should ordain him: upon which Budha assembled the priests, and said:

44. Priests, I direct that a Samanero shall be ordained by thrice repeating the Saranas. And thus shall he be ordained. First, let the head and beard be shaved, yellow robes put on, and one shoulder being bared, let (the candidate) worship the feet of the priests, kneel down and with joined hands say, I take refuge in Budha, I take refuge in the doctrine, I take refuge in the priesthood. A second time I take refuge in Budha, a second time I take refuge in the doctrine, a second time I take refuge in the priesthood. A third time I take refuge in Budha, a third time I take refuge in the doctrine, a third time I take refuge in the priesthood. I direct priests, that by this thrice repeating the Saranas, a Samanero shall be ordained.

Sariputta accordingly ordained Prince Rāhula a priest.

The king Suddhodano, Budha's father, came to him and having worshipped him sat down and said, I have to solicit a boon. He then stated that he experienced much sorrow when Goutama became a priest: that this was much increased when Ananda joined the priesthood, and that the ordination of Rāhula, whom he loved with the most tender affection, was like tearing off the skin and crushing the bones and marrow; and requested that in future no person should be admitted into the priesthood, unless he had first obtained the consent of his parents. Budha consoled his father by explaining his doctrines to him, and when the king retired, he assembled his priests, and said:

45. Priests, no person should be received into the priesthood who has not previously received the consent of his parents. He who receives him is guilty of Dukkata.

Afterwards Budha left Kapila Watt'hu and going to Sawatti resided at Jetawany. At that time a family who ministered to Sāriputta brought one of their sons to him and requested that he would receive him as a Samanero. Sāriputta, although desirous to meet their wishes, remembered that Budha had prohibited any priest having more than one Sāmanero under his charge, and he already had Rāhula. He stated the circumstance to Budha, who decreed :

46. I permit, priests, that an eloquent and well informed priest may have two Samaneros under his care, or as many as he is able to advise and instruct.

The Samaneros then desired to know what precepts they were to observe, and upon its being reported to Budha, he decreed :

47. I direct, priests, that Samaneros shall be taught these ten precepts, and obey them: To abstain from destroying life: to abstain from theft: to abstain from incontinence: to abstain from lying: to abstain from intoxicating liquors: to abstain from taking food after mid-day: to abstain from dancing, singing, playing on musical instruments and theatrical representations: to abstain from the use of flowers, garlands, perfumes and cosmetics: to abstain from the use of high or large couches; and to abstain from receiving gold or silver. I direct priests, that Samaneros shall be taught these ten precepts, and be subject to them.

Some Samaneros became careless, and disrespectful and disobedient to the priests. This being reported to Budha, he decreed :

48. Priests, I direct that Samaneros guilty of the five acts following, shall be subject to Penal Discipline (දဿකမ္မံ danda kamman) namely, if they strive to diminish the prosperity of the priests; to render them uncomfortable; to remove them from their dwellings; if they speak insolently and

abusively to the priests; or if they excite dissensions between priests; I direct, priests, that for any of these five offences a Samanero shall be placed under penal discipline.

The priests were doubtful how this discipline should be exercised: upon which Budha decreed:

49. I direct, priests, that they shall be placed under an interdict, (*apāṇa*) a restraint or prohibition respecting the performance of certain actions or being in certain places.)

Some priests prohibited Samaneros from being in any part of the grounds belonging to the Monastery. In consequence of which some of them ceased to be priests, while others joined other religious bodies. This was reported to Budha, who decreed:

50. It is not proper, priests, to prohibit an entrance into the entire grounds connected with the priest's residence: whoever does so is guilty of Dukkata. I permit priests, that entrance into the place where the Upādya lives, or to which he returns, may be interdicted.

Some priests placed an interdict on the door of the mouth (i. e. prohibited the Samanero from eating or drinking), and when persons brought congee and rice for the use of the priests, they invited the Samaneros to partake thereof. They replied, We cannot, friends: we are prohibited by the priests. The people were much dissatisfied with this conduct. The circumstance was brought to the notice of Budha, who decreed:

51. It is not proper, priests, to prohibit (the Samaneros) from eating. He who does so is guilty of Dukkata.

Some of the six class priests, (that is, a fraternity of six principal priests, who had many disciples and adherents among the junior priests) placed Samaneros under an interdict without the authority or privity of the Samaneros' Upādya: and when the Upādya sought for them, saying, Where are our Samaneros, we do not see them; they were informed that the six class priests had put them under an interdict. They complained to Budha, who decreed:

52. It is not proper, priests, to put (a Samanero) under an

interdict without the concurrence of the Upādyo: whoever does so is guilty of Dukkata.

Some of the six class priests enticed the Samaneros to leave their own Upādyaas and wait upon them, so that those Upādyaas had to bring water, &c., and wait on themselves. This was reported to Budha, who decreed :

53. It is not proper, priests, to entice the attendants of other priests; whoever does so is guilty of Dukkata.

A Samanero seduced a priestess. The priests complained to Budha, who decreed :

54. I direct, priests, that a Samanero who is guilty of the ten following crimes shall be expelled the priesthood. If he destroy life; if he take that which is not given to him; if he be incontinent; if he speak lies; if he drink intoxicating liquors; if he speak evil of Budha; if he speak evil of the doctrine; if he speak evil of the priests; if he be heterodox; if he debauch a priestess. I direct, priests, to expel from the priesthood (သုဘေတု *nāsetun* to kill, destroy) a Samanero guilty of any of these ten crimes.

A eunuch was admitted into the priesthood, but continued to act as a catamite. Budha decreed :

55. Priests, if a eunuch have not received Upasampadā it should not be given to him: or if he have received Upasampadā he shall be expelled.

A person of an ancient family who had been educated in luxury became exceedingly poor, and did not know how to obtain a subsistence: being quite unfit for business of any kind, seeing that the priests fared well, he determined to shave his head and assume the priestly garb. He accordingly put on the yellow robes, took a begging bowl in his hand and going to a Monastery represented himself to be a priest of Budha, but he was soon detected, being unacquainted with the rules of the priesthood. The case being investigated by Upāli was reported to Budha, who decreed :

56. If a person fraudulently dwell with the priests (he not having been admitted as a Samanero) if he have not received

Upasampadā he shall not receive it: or if he have received Upasampadā he shall be expelled.

57. A person who has left the priesthood and joined another religious fraternity, if he have not received Upasampadā shall not receive it: or if he have received Upasampadā he shall be expelled.

[The next law is introduced by a tale respecting a Nāgo. These are represented as immense snakes of the Cobra Capella tribe, but of miraculous power, and altogether distinct from the common snake species: they have a peculiar residence of their own where they possess immense riches. They can assume the human form, intermarry with the human race and have children by them: yet their natural form is serpentine. Buddhist legends abound with tales respecting them.]

A Nāgo was entirely disgusted with being of a serpentine race, and thought, How can I speedily escape from this state, and become a human being. He reflected on the purity and holiness of the Buddhist priests, and concluded that if he could be received into the priesthood and receive Upasampadā his object would be accomplished. He therefore assumed the form of a young man, and going to a Monastery requested admission into the priesthood. He was admitted and afterwards received Upasampadā, and lived with another priest in a room at the extremity of the Monastery. It is said, that the Nāgas can only retain the human form while they exercise consciousness, but if they fall so soundly asleep as to be unconscious, the serpentine form is developed. The priest who lived in the room with the Nāgo rose very early and went into the open air; upon his departure the Nāgo fell into a sound sleep, and his natural form being developed, his body filled the entire room and part of it extended beyond the window. The priest who had gone out being desirous of returning to his room, opening the door saw this immense snake and shrieked with terror. The whole Monastery was alarmed, and the Nāgo awaking assumed the human form.

Upon being questioned he stated who he was, and his reason for wishing to become a priest. The priests informed Budha of the circumstance, who convened an assembly of the priests, and told the Nāgo that his desire to become a priest could not be accomplished; but that if he religiously observed the Uposatha (Poya) days he would escape from the serpentine race and soon be born as a human being. Budha then decreed:

58. An animal, priests, who has not obtained Upasampada shall not receive it: or if he have obtained Upasampada he shall be expelled.

A young man had killed his mother, and being tortured with remorse, hoped by becoming a priest to escape from the consequences of his crime. He accordingly applied for admission, but the case of the Nāgo having taught the priests caution, he was examined by Upāli and the case was reported to Budha, who decreed:

59. Priests, a matricide who has not obtained Upasampada shall not receive it: or if he have received Upasampada he shall be expelled:

[The following laws are introduced by a slight notice of the reason of their being enacted, in a manner similar to the preceding: these introductions are omitted, as they contain nothing of interest.]

60. A parricide, priests, who has not obtained Upasampada shall not receive it: or if he have obtained Upasampada he shall be expelled.

61. Priests, he who has killed a Rahat, if he have not obtained Upasampada, he shall not receive it: if he have obtained Upasampada he shall be expelled.

62. Priests, he who has violated a priestess, if he have not obtained Upasampada he shall not receive it: if he have obtained Upasampada he shall be expelled.

63. Priests, he who promotes schism among the priests, if he have not obtained Upasampada he shall not receive it: if he have obtained Upasampada he shall be expelled.

64. Priests, he who draws blood from the person of Budha,

if he have not obtained Upasampada shall not receive it : or if he have obtained Upasampada he shall be expelled.

Some persons who were without an Upādyā received Upasampada. Upon this being reported to Budha, he decreed :

65. Priests, Upasampada shall not be given to one who has not an Upādyā : he who gives Upasampada to such is guilty of Dukkata.

Some gave Upasampada to persons who took the whole Sangho as Upādyā : upon which Budha decreed.

66. Priests, Upasampada shall not be given to any one who has the Sangho as an Upādyā : he who gives the Upasampada is guilty of Dukkata.

Some gave Upasampada to persons who took a number of priests, less than a Sangho, as Upādyā. This being reported to Budha, he decreed :

67. Priests, Upasampada shall not be given to any one having a number of priests less than a Sangho as Upādyā ; he who gives the Upasampada is guilty of Dukkata.

Some persons received Upasampada having improper persons as Upādyā. This being reported to Budha, he decreed :

68. Priests, Upasampada shall not be given to any persons having for Upādyā a eunuch ; one furtively living with the priests (an imposter) ; one who has united himself to another fraternity ; one who is an animal ; a matricide ; a parricide ; a murderer of a Rahat ; a violater of a priestess ; a schismatic ; one who has drawn blood from the person of Budha ; or one who is an hermaphrodite. He who gives the Upasampada is guilty of Dukkata.

Some persons were admitted to Upasampada who had not been furnished with the bowl, robes, and other articles which a priest should possess, in consequence of which Budha decreed :

69. Priests, Upasampada shall not be given to a person who is without a bowl : he who gives the Upasampada is guilty of Dukkata.

70. Priests, Upasampada shall not be given to a person

who is not provided with the robes: he who gives the Upasampada is guilty of Dukkata.

71. Priests, Upasampada shall not be given to a person who is not provided both with a bowl and the robes: he who gives the Upasampada is guilty of Dukkata.

72. Priests, Upasampada shall not be given to a person who has a borrowed bowl: he who gives the Upasampada is guilty of Dukkata.

73. Priests, Upasampada shall not be given to a person who has borrowed robes: he who gives the Upasampada is guilty of Dukkata.

74. Priests, Upasampada shall not be given to a person whose bowl and robes are borrowed, he who gives the Upasampada is guilty of Dukkata.

The priests admitted to Upasampada persons who were maimed, deformed, diseased, or of known bad character: these circumstances having been reported to Budha, he decreed:

75. Priests, no person shall be admitted to Upasampada, whose feet or hands, or feet and hands, have been amputated; whose nose or ears, or nose and ears have been cut off; whose finger or thumb has been amputated; whose tendons have been cut (so as to produce lameness); whose fingers are joined together (so that they cannot be separated from each other); who is hump-backed; who is a dwarf, or who has a swelling in the neck; who has been branded, flogged, or outlawed; who has a swollen leg; an evil disease; an offensive personal odour; who is blind with one eye; deformed; lame; who is a paralytic; maimed; decrepid; blind with both eyes; dumb; deaf; blind and dumb; blind and deaf; deaf and dumb; or blind, deaf and dumb: he who gives the Upasampada is guilty of Dukkata.

The six class priests received as resident pupils priests who were of irregular conduct ("shameless" priests) Budha ordained:

76. Priests, Nissayo (the privilege of residence as a pupil) shall not be given to shameless persons: he who gives it is guilty of Dukkata.

Some priests went to reside as pupils with priests of irregular life and these soon became shameless and wicked priests : Budha decreed :

77. Priests, no one shall reside as a pupil with a shameless priest : he who does so is guilty of Dukkata.

The priests then enquired, how they could ascertain that the priests, whether preceptors or pupils, were irregular in their conduct. Budha decreed :

78. Priests, I permit a residence of four or five days until the character of the priest is ascertained.

A junior priest travelling through Kosul thought, Bagawa has decreed that junior priests shall live with their preceptors. I am a junior priest, and am alone on my journey, what ought I to do? The case was reported to Budha, who decreed :

79. Priests, I permit that when a priest on a journey cannot be with a preceptor, he may reside apart from him.

Two priests were travelling through Kosul, and one was detained on the road by sickness. He, being a junior, ought to reside under the inspection of a preceptor, and he was doubtful what he ought to do ; Budha decreed :

80. Priests, I permit a sick priest, who cannot be under the inspection of a preceptor, to remain alone (without inspection.)

A junior priest who attended on the above mentioned sick priest, also reflected that he himself was a priest, who, according to the precepts of Budha, ought to live under the inspection of a preceptor. He enquired what he ought to do : Budha decreed :

81. Priests, I permit that a priest, ministering to a sick priest, may remain without being under inspection, if he cannot be with a preceptor.

A priest residing in a wilderness found it conducive to his spiritual welfare to remain there : but he was one who ought to live under the direction of a preceptor. He remembered the precept, and was doubtful respecting the course he ought to adopt. The case being reported to Budha, he decreed :

82. Priests, if a residence in a wilderness appears to be for the welfare of a priest, and if he have no preceptor there with whom he may live, he may continue without being under inspection, saying within himself, Whenever a suitable person arrives I will dwell with him.

Maha Kāssapa was Upadya to a person who sought to obtain Upasampada, and he sent a messenger to Ananda requesting him to come and recite the formulary. Ananda thought, I cannot presume to pronounce the name (his proper name when he was a layman) of the Tero : I reverence the Tero. The case was submitted to Budha, who decreed:

83. Priests, I permit the Gotra (of the Upadya) to be used in reciting the formulary.

[That is, instead of saying N desires to receive Upasampada under Pipili as his Upadya, he may use the name given when he became priest, and say, N desires to receive Upasampada under Maha Kāssapa as Upadya. The object was to avoid pronouncing the proper name of the Upadya, which would be regarded as claiming an equality with him.]

There were two candidates for Upasampada having Maha Kāssapa as their Upadya : a contest arose respecting the one to be first ordained, as he would be the senior, the privileges of seniority being considerable. Budha decreed:

84. Priests, I permit two persons to be named in the same formulary.

That is, both names to be joined: as M and N desire to receive Upasampada, &c., by which means they would stand on an equality.

There were several candidates for Upasampada under different Upadyas: they contended who should be ordained first, and the Upadyas thought they might all be included in the same formulary. The case was reported to Budha, who decreed:

85. Priests, I permit two or three to be included in one formulary, if they have the same Upadya, but not if the Upadyas be different.

When Kumara Kassapa received Upasampada, his age was computed from his conception in the womb of his mother, so that he had not lived twenty years from the time of his having been brought forth from the womb. As Budha had decreed that no person should receive Upasampada who was not twenty years of age, he became doubtful respecting the validity of his ordination. The case was submitted to Budha, who said:

Priests, whenever the first thought or first perception is produced in the womb of the mother, then there is Jati (birth, or commencement of life.)

86. Priests, I permit Upasampada to be given twenty years after conception in the womb.

Some priests were seen afflicted with ulcers, and other diseases. The case was reported to Budha, who decreed :

87. I direct, priests, that when Upasampada is to be given, enquiry shall be made respecting the 13 disqualifications for ordination: and the enquiry shall be in this manner: Have you any of these diseases, leprosy, ulcers, dry itch, consumption, epilepsy? Are you a human being? Are you a male? A freeman? Out of debt? Are you not in the king's service (a soldier, &c.)? Have you the permission of your parents? Are you full twenty years of age? Have you the bowl and robes complete? What is your name? What is the name of your Upadaya?

The candidates for Upasampada were questioned at the time of ordination respecting the disqualifications before recited, but they were timid and abashed, and unable to give suitable answers. Budha decreed:

88. Priests, I direct that the candidates shall first be instructed, and afterwards questioned respecting the disqualifications.

The candidates were instructed on these points in the midst of the Sangho, but from timidity and bashfulness they could not give suitable answers. Budha decreed :

89. Priests, I direct that the instruction shall be given apart, but that they be questioned respecting the disquali-

fications in the midst of the Sangho: and in this form they shall be instructed. First, the candidate is to obtain an Upadya: after an Upadya has been obtained he must be informed respecting the bowl and robes: This is thy bowl; this is thy Sanghati, this thy Uttarasangho: this thy Antarawasako (names of the three robes). Go, and stand in that place.

Unlearned and unskilful priests gave the preparatory instructions, in consequence of which the candidates were timid and bashful, and could not answer correctly. Budha decreed:

90. Priests, an unlearned and unskilful person shall not give the preparatory instructions: if he do so, he is guilty of Dukkata. I direct, priests, that a person learned and skilful shall give the instructions.

Persons who had not been appointed by the Sangho gave the preparatory instructions. Budha decreed:

91. Priests, a person who has not been appointed (by the Sangho) shall not give the instructions: if he instruct he is guilty of Dukkata. I direct, priests, that instruction shall be given by a person appointed for that purpose. And thus, priests, shall he be appointed: the appointment may be by a self-nomination, or by the nomination of another person. How is the appointment to be by a self-nomination? A learned and skilful priest shall thus address the Sangho, Hear me, Lord Sangho! M seeks Upasampada under N as his superior. If it be a convenient time for the Sangho, I will instruct M. Thus he nominates himself. How should one person nominate another? A learned and skilful priest shall thus address the Sangho: Hear me, Lord Sangho! M seeks Upasampada under N as his superior. If it be a convenient time for the Sangho, A will instruct M. Thus one person nominates another. Then the priest thus nominated is to go to the candidate and say, M, attend. This is a season for you to speak the truth and state things as they are. When you are questioned in the Sangho, if you know the thing to be so, say It is. If

you know it is not so, say It is not. Do not be timid or bashful. They will thus question you, Have you any of these diseases: leprosy, ulcers, dry itch, consumption, epilepsy? Are you a human being? Are you a male? Are you a free man? Are you out of debt? Are you in the king's service? Have you the permission of your parents? Are you fully twenty years of age? Have you the bowl and robes complete? What is your name? What is the name of your Upadya? Then separating, the person who has given the instruction shall come first, and addressing the Sangho, say, Hear me, Lord Sangho! this M seeks Upasampada under N as his superior: he has been instructed by me: if it be a convenient time for the Sangho, M will approach. He will then say, Come! and the candidate having removed his robe from one shoulder, and worshipped the feet of the priests, shall kneel down, and with uplifted hands he shall request Upasampada, saying, Lord Sangho, I request Upasampada. Compassionate me, Lord Sangho, and raise me up. A second time, Lord Sangho, I request Upasampada. Compassionate me, Lord Sangho, and raise me up. A third time, Lord Sangho, I request Upasampada. Compassionate me, Lord Sangho, and raise me up. A learned and skilful priest shall then announce it to the Sangho, saying, Hear me, Lord Sangho! this M requests Upasampada, having N as his Upadya: if it be a convenient time for the Sangho, I will question M respecting the disqualifications. M, attend! this is a season for you to speak the truth, and state things as they are. I question you respecting that which you know: if it be so, say It is. If it be not so, say It is not. Have you any of these diseases: leprosy, ulcers, dry itch, consumption, epilepsy? Are you a human being? Are you a male? Are you a free man? Are you out of debt? Are you in the king's service? Have you the permission of your parents? Are you fully twenty years of age? Have you the bowl and robes complete? What is your name? What is the name of your Upadya? A learned and skilful priest will

then address the Sangho, saying, Hear me, Lord Sangho! M seeks Upasampada, having N for his Upadya: he is free from the disqualifications, and has the bowl and robes complete. M seeks Upasampada from the Sangho, having N for his Upadya. If it be a convenient time the Sangho will grant Upasampada to M, having N for his Upadya: this is announced. Hear me, Lord Sangho! this M seeks Upasampada, having N for his Upadya: he is free from the disqualifications, and has the bowl and robes complete. This M requests the Sangho to grant him Upasampada, having N for Upadya. The Sangho grants Upasampada to M, having N for his Upadya. Any venerable one who consents to the giving Upasampada to M, having N for his Upadya, will remain silent: he who dissents will speak. I state the same a second time: Hear me, Lord Sangho! &c. I state the same a third time, Hear me, Lord Sangho! &c. M receives Upasampada from the Sangho, having N. for his Upadya. The Sangho assents, and therefore is silent; and thus I receive it. Instruction shall then be given respecting the measuring the shadow (of the sun); the several seasons, the divisions of the day, and concerning the uses of the whole of these. Also information must be given respecting the four principles on which the priesthood is founded: viz. 1: The priesthood is for the purpose of living upon food collected as alms. This is that to which you are to attend as long as you live. 2: The priesthood is for the purpose of wearing garments made of cast away cloth. This is that to which you are to attend so long as you live. 3: The priesthood is for the purpose of residing at the foot of a tree. To this you are to attend so long as you live. 4: The priesthood is for the purpose of using as medicine the urine of horned cattle. To this you are to attend so long as you live. [To each of these the extras (අතිරෙකලාභො) are added, for which see p. 24.]

The new priests, after receiving Upasampada, were dismissed

separately, without being instructed in the four obligations incumbent on them. One of them was met by the woman who had been his wife, and yielded to her solicitations. The case was reported to Budha, who decreed :

92. Priests, I direct that when Upasampada has been given, the four acts improper to be done by a priest shall be explained to him. 1 : The ordained priest shall not have sexual intercourse even with an animal: he who has sexual intercourse ceases to be a priest, a son of Sakya. As when a man is decapitated the body is no longer capable of life, so the priest having this intercourse is no longer a priest, a son of Sakya. This act is unlawful so long as you live. 2 : The ordained priest shall not take, with a dishonest intention, any thing which is not given to him, not even a blade of grass. If any priest with a dishonest intention shall take a pāda, or the value of a pāda, or more than a pāda, which is not given to him, he ceases to be a priest, a son of Sakya. As a seared leaf separated from its stalk is no longer capable of vegetating, even so a priest who, with a dishonest intention takes a pada, or the value of a pada, or more than a pada, which is not given to him, ceases to be a priest, a son of Sakya. This act is unlawful so long as you live. 3 : The ordained priest shall not willingly take away the life of any being, not even of an insect. Any priest who shall wilfully destroy human life, even by causing abortion, ceases to be a priest, a son of Sakya. As a large rock split into two cannot again be united, even so a priest who wilfully destroys the life of a human being, ceases to be a priest, a son of Sakya. This act is unlawful so long as you live. 4 : An ordained priest shall not boast of high spiritual attainments, even if it be by saying, I delight in solitude. Any priest who with an evil design and boasting, shall untruly and falsely profess to have high spiritual attainments, whether abstract meditation (ဓမ္မာနာယိက jhanan), freedom from the passions (ဝိမုတ္တိ wimokkhan), unbroken tranquillity (ဓမ္မာနာယိက samadhin), attainment either of the paths to

Nirwana or to the results of those paths, ceases to be a priest, a son of Sakya. Even as the palm tree when its top is cut off cannot flourish again, so the priest who with an evil design and boasting, shall untruly and falsely profess to have high spiritual attainments, ceases to be a priest, a son of Sakya. This act is unlawful so long as you live.

A priest who had been guilty of a fault and placed under discipline, would not acknowledge himself guilty, but left the priesthood. Afterwards he repented and sought to be re-admitted. The case was reported to Budha, who decreed:

93. If any priest, guilty of a fault, has been placed under discipline, does not acknowledge his fault but leaves the priesthood: if he afterwards seeks re-admission he must be thus addressed: Do you acknowledge your fault? If he say, I do, he may be made a priest (Samanero), but if he do not acknowledge his fault, he shall not be made priest. After he has been made a priest, he must be asked again if he will acknowledge his fault and submit to discipline. If he promise this, he may receive Upasampada. After receiving Upasampada he is to submit to the discipline required for his former offence. If he do this, it is well: if not he shall again be placed under the discipline of non-intercourse.

End of the Maha Khandako, or Chapter respecting Ordination.
(To be continued.)

CEYLON ORNITHOLOGY,

By E. F. KELAART, ESQ., M.D., *Staff Surgeon.*

IN order to place before the Ceylon student of Natural History a systematic account of the Genera of Birds, I have extracted for their use descriptions of the Genera of Ceylon Birds from the celebrated work of GRAY and MITCHELL, which from its costly character is beyond the reach of many.

My descriptions of Ceylon Birds formed originally part of a work contemplated by Mr. Layard and myself: the former undertaking to write an account of the habits of the birds. But owing to Mr. Layard's unexpected departure from Ceylon in search of health, we are not able to work together. Therefore, I can only promise to bring before the public, descriptions of birds which I have either seen or examined. But with a view of making the paper more complete, I shall add from authentic sources descriptions of other birds, of which I have not at present any specimens to describe from.

It will also be my endeavour to describe the habits of some of the birds which have come within the limited field of my own observation, trusting that at no distant time some Field Naturalist will finish the work now begun.

Gray's Genera of Birds adapted to Ceylon Ornithology.

ORDER. I. ACCIPETRES.

This order embraces the Birds of Prey; they have the *bill* of various length and form, more or less compressed, with the *culmen* suddenly hooked at the tip, and acute: the base more or less covered with a *cere*, in which are pierced the variously formed nostrils; the *wings* lengthened and pointed; the *feet*

strong, with *tarsi* moderate, generally rounded and covered with scales of different shapes; the *toes* three before and one behind, all armed with strong *claws*, and their soles invariably rough.

The first Sub-Order

ACCIPETRES DIURNI, or *Diurnal Birds of Prey*,

are distinguished from those that pursue their food in the twilight or at night, by the lateral position of their *eyes*: the base of the upper mandible covered for nearly half its length with a prominent *cere*, in which the nostrils are placed: the *tarsi* moderate, scaled, and rarely covered with plumes.

FAM: FALCONIDÆ.

SUB-FAM: AQUILINÆ, or EAGLES.

GENUS. AQUILA *Mæhr*.

Bill strong at the base, and with the apical portion of the *culmen* much curved to the tip, which is greatly hooked and acute: the sides much compressed, and the lateral margins festooned; the *nostrils* placed at the *cere*, large, and rather oblique. *Wings* lengthened and acute, with the fourth and fifth quills equal and longest. *Tail* long and wedge-shaped, or rounded at the end. *Tarsi* rather longer than the middle toe, robust, and entirely clothed to the base of the toes with feathers. *Toes* moderate, strong, lateral ones unequal, and all armed with strong, curved, acute claws: the inner the strongest.

GENUS. SPIZÆTUS. *Vieill*.

Bill moderate, the *culmen* straight at the base, and much arched to the tip, which is acute and compressed, and the lateral margins festooned; the *nostrils* large and rather rounded. *Wings* moderate, reaching to half the length of the tail, with the fourth and fifth quills equal and longest. *Tail* long and slightly rounded at the end. *Tarsi* slender, much longer than the middle toe, and plumed to the base of the toes. *Toes* long, strong, the inner one much longer than the outer, which is

united to the middle one by a membrane: all covered above with small scales except at the apex, where there are a few transverse ones, and each toe armed with a long, strong, curved and acute claw.

GENUS. CIRCAËTUS. Vieill.

Bill moderate, *culmen* at the base straight, and much curved to the tip, which is hooked and acute, the lateral margins festooned; the *nostrils* large, oblique, and suboval. *Wings* lengthened and acute, with the third and fourth quills equal and longest. *Tail* long and even. *Tarsi* much longer than the middle toe, feathered below the knee, and entirely reticulated. *Toes* short, strong, and covered with small scales, except at the tips; the outer united to the middle by a membrane; the *claws* long, curved, and acute.

GENUS. HALIAËTUS. Sav.

Bill large, *culmen* straight at the base, and curved to the tip, which is hooked and acute, the sides compressed, the lateral margins slightly festooned, and the lores naked; the *nostrils* moderate, linear, and oblique. *Wings* lengthened and acute, with the third, fourth, and fifth quills nearly equal and longest. *Tail* moderate and rounded, *Tarsi* short, strong, covered in front with transverse narrow scales, and with small irregular ones posteriorly, and on the sides. *Toes* long, mostly covered above with transverse scales; the claws long, curved, and acute.

GENUS. PONTOAËTUS. Kaup.

The characters of *Haliaëtus*, except that the *tarsi* are covered in front with transverse scales, posteriorly with large irregularly placed scales, and on the inner side with small ones. *Toes* almost entirely covered above with transverse scales.

GENUS. HALIASTUR. Selby.

Most of the characters are similar to those of *Haliaëtus*; but the *tarsi* are covered in front with large obliquely placed scales, posteriorly with large irregular scales, and the sides with small ones.

SUB-FAM: FALCONINÆ, TRUE FALCONS.

GENUS. FALCO. Linn.

Bill short, strong, with the *culmen* much arched from the base to the tip, which is acute: the sides compressed, the lateral margins strongly toothed near the tip; the *nostrils* placed in a short cere, naked and rounded, with a central tubercle. *Wings* lengthened and acute, with the second and third quills the longest, and the first and second notched near the tip. *Tail* long and rounded. *Tarsi* short and strong, covered with small irregular scales, and the tibial feathers covering the knee. *Toes* lengthened and strong, the lateral ones unequal; the hind toe long, armed as well as the inner with a strong, hooked, acute claw.

GENUS. HYPOTRIORCHIS. Boie.

The characters in common with *Falco*; but the *tarsi* more or less lengthened, somewhat slender, and covered in front with large hexagonal scales. *Toes* very long and slender.

GENUS. TINNUNCULUS. Vieill.

The forms agree with those of *Falco*. But the *tarsi* are more or less lengthened, strong, and covered in front with large transverse hexagonal scales. *Toes* moderate and strong.

SUB-FAM: MILVINÆ, or KITES.

GENUS. BAZA. Hodgson.

Bill moderate, elevated at the base, which is broad, the sides compressed, the *culmen* much arched, and the lateral

margins furnished with two small teeth near the tip, the lower mandible also furnished with small teeth near the tip; *lores* clothed with small feathers; the *nostrils* placed in the *cere*, in the form of an oblique slit. *Wings* lengthened, nearly reaching to the end of the tail, with the third and fourth quills the longest. *Tail* long and broad. *Tarsi* thick and very short, longer than the middle toe; basal half plumed, and the other part covered with small scales. *Toes* thick, free at their base, the inner longer than the outer; the claws small and acute.

GENUS. MILVUS. Cuv.

Bill laterally compressed, the *culmen* straight at the base, and then much curved to the tip, which is acute, the lateral margins somewhat straight; the *nostrils* oval, and placed rather obliquely in the *cere*. *Wings* very long, with the third and fourth quills the longest. *Tail* very long, broad, rounded, or more or less forked at the end. *Tarsi* very short, partly plumed from the base, and the rest covered with scales. *Toes* rather short, with the outer united at its base to the middle one, the *claws* long and curved.

GENUS. ELANUS. Sav.

Bill short, very broad at the base, and compressed towards the tip, which is hooked and acute; the *nostrils* large and suboval. *Wings* very long, pointed, and reaching beyond the tail, with the second quill the longest. *Tail* long, and slightly emarginated. *Tarsi* short, nearly the length of the middle toe, with the basal part plumed, and the other covered with reticulated scales. *Toes* moderate, broad, and free at the base, with the outer much shorter than the inner toe; the *claws* strong and curved.

SUB FAM: ACCIPITRINÆ, or SPARROW HAWKS.

GENUS. ASTUR. Lacep.

Bill short, broad at the base, and with the sides gradually

compressed to the tip; the *culmen* elevated, and much arched to the tip, which is acute, and the lateral margins festooned in the middle; the *nostrils* large and suboval, and placed in the basal cere. *Wings* long, reaching to the middle of the tail, with the third, fourth, and fifth quills nearly equal, and longest. *Tail* long and broad. *Tarsi* rather longer than the middle toe; the anterior and posterior sides covered with broad transverse scales. *Toes* more or less lengthened, strong, and padded beneath each joint; the lateral toes unequal; the inner and hinder ones equally long and strong, and armed with long, strong, and curved claws.

GENUS. ACCIPITER. *Kriss.*

Bill very short with the *culmen* much arched to the tip, which is acute; the sides much compressed, and the lateral margins festooned; the *nostrils* placed anteriorly in the cere, large and suboval, partly concealed by the projecting hairs of the lores. *Wings* moderate, with the fourth and fifth quills nearly equal, and longest. *Tail* long, ample, and nearly square at the end. *Tarsi* longer than the middle toe, covered in front with nearly obsolete scales. *Toes* more or less lengthened, and padded beneath the joints; the lateral ones unequal, and the inner and hind toes equal in length, and both with a strong curved claw.

SUB-FAM: CIRCINÆ, or HARRIERS.

GENUS. CIRCUS. *Lacep.*

Bill moderate, elevated at the base of the *culmen* and arched to the tip, which is hooked; the sides compressed, and the lateral margins festooned; the *nostrils* large, oval, and partly concealed by the curved hairs of the bases. *Wings* long, with the third and fourth quills nearly equal and longest. *Tail* long and rounded on the sides. *Tarsi* long, slender, and compressed, the outer side covered with transverse scales, and the inner with small scales. *Toes* moderate, with the

outer one longer than the inner; the *claws* long, slender and acute.

SUB-ORDER. ACCIPITRES NOCTURNI.

Nocturnal Birds of Prey.

FAM: STRIGIDÆ, or OWLS.

SUB-FAM: SURNINÆ, or HAWK OWLS.

GENUS. ATHENE. *Boie.*

Bill short, partly concealed by the projecting plumes, the sides compressed, the *culmen* much arched to the tip, which is hooked and acute; the *nostrils* basal, lateral and hidden by the frontal plumes. *Wings* rather long and rounded, with the third and fourth quills the longest. *Tail* moderate and nearly even. *Tarsi* longer than the middle toe, and covered with plumes. *Toes* short, and covered with scattered hairs; the *claws* long, arched and acute.

SUB-FAM: BUBONINÆ, or HORNED OWLS.

GENUS. EPHIALTES, *Keys, and Bl*

Bill moderate, the base concealed and broad, the sides compressed, with the *culmen* flattened at the base, and curved to the tip, which is hooked; the lateral margins curved; the *nostrils* rounded, placed in the forepart of the cere, and covered by the basal plumes. *Wings* long, with the second, third and fourth quills nearly equal and longest. *Tail* short, and more or less even. *Tarsi* rather long, and covered with short plumes to the base of the toes. *Toes* long, covered with small scales at the base, and with three or four transverse scales at the tip; the *claws* moderate, strong and curved.

GENUS. KETUPA. *Less.*

Bill large, broad at the base, compressed towards the tip, which is hooked, the lateral margins slightly arched: the

nostrils lateral, placed in the anterior part of the cere, and hidden by the projecting plumes. *Wings* moderate, with the third and fourth quills equal and longest. *Tail* short, and nearly even at the end. *Tarsi* rather long, covered at the base with down, and towards the tips with minute scales. *Toes* moderate, strong, covered with small scales, except at the tips which are furnished with three or four transverse scales, the lateral toes unequal, the *claws* long, strong and curved.

SUB-FAM: SYRNIINÆ, or OWLETS.

GENUS. SYRNIUM. Sav.

Bill moderate, strong, with the base broad, and concealed by the frontal plumes; the sides compressed, and the culmen arched to the tip, which is hooked; the *nostrils* basal, lateral, and medial, with the opening large and oval. *Wings* long and rounded, with the fourth and fifth quills equal and longest. *Tail* long, broad, and more or less rounded. *Tarsi* short, strong, thick, and densely clothed with plumes. *Toes* moderate, densely plumed to the end of each toe, the *claws* long, acute, and slightly curved.

SUB FAM: STRIGINÆ, or OWLS.

GENUS. STRIX. Linn.

Bill long, mostly concealed at the base by the projecting plumes; the sides much compressed, and the culmen arched to the tip, which is acute and hooked; the *nostrils* large, partly covered by a membrane, with the opening oval, and slightly hidden by the hairs. *Wings* very long, with the second quill the longest. *Tail* short and generally even. *Tarsi* much longer than the middle toe, slender and covered with short soft plumes. *Toes* long, and covered with scattered hairs; the lateral ones unequal, the outer much shorter than the inner; the hind toe short and thick; the *claws* long, curved and acute.

DESCRIPTION OF BIRDS OF CEYLON,

By E. F. KELAART, M. D.

ORDER. ACCIPITRES.

SUB-ORDER. ACCIPITRES DIURNI.

Diurnal Birds of Prey.

FAM: FALCONIDÆ.

2. AQUILINÆ.

AQUILA BONELLI, *Temm.* The Genoese Eagle.*Syn.* *Aquila intermedia*, *Bonelli*.*Aquila fasciata*, *Vieill.**Nisaetus grandis*, *Hodgson*.

Uniform dark brown above, white beneath with dark brown longitudinal streaks on the chin, throat and breast; upper part of inner web of primaries streaked and spotted with white. Tail slaty blue with darker transversal bands, tip palish; under tail coverts white, irregularly barred with rufous brown. Thighs barred with rufous brown. Bill horn colour, cere yellow, tarsi yellow, claws black.

The only specimen of this Eagle examined is one found by Dr. Templeton, it measured 2 feet 3 inches; closed winged, 1 foot 6 inches. *Habitat* not known.

AQUILA PENNATA, *Gmel.* The Pennated Eagle.*Syn.* *Aquila minuta*, *Brehm.**Spizaetus milvodes*, *Jerdon*.

Head and neck light rufous brown with dark medial streaks. Back, wings, and upper surface of tail dark brown. Under parts white, breast and lower part of neck streaked with rufous brown; shafts of feathers of a darker shade. Under wing coverts white, shafts brown, a few brown spots on the

outer ones. Upper tail coverts rufous with whitish tips and margins. Extreme tip of tail pale. Thighs and legs white, indistinctly spotted light rufous. Bill slaty blue; toes yellow; claws black. Length 1 foot 6 inches. Wing 1 foot 3 inches.

Shot at Point Pedro by Mr. Edgar Layard. This is one of our rarest indigenous birds of prey.

AQUILA MALAYENSIS, *Reinw.* The Black Eagle.

Syn. *Aquila pernigra*, *Hodgson.*

Neopus perniger, *Hodgson.*

Nisaetus? *ovivorous*, *Jerdon.*

Ictinaetus Malaiensis, *Blyth.*

Uniform black above, rather dusky below (a few white spots scattered on the body and tail of the specimen examined). Tail barred with broad brownish bands. Bill blue with black tip, cere yellow. Toes yellow, claws black. Irides brown. Occipital crest black. About 2 feet 6 inches long.

This is also a rare bird of prey in the Island. One or two only are occasionally seen on the Kandyan Hills. The specimen we have examined was procured by Mr. Charles Kelaart, at Kaduganava.

SPIZAETUS NIPALENSIS, *Hodgson, Gray.* The Beautiful Crested Eagle.

Syn. *Nisaetus Nipalensis*, crested var. young. *Hodg.*

Nis. pulcher, adult, *Hodg.*

Falco orientalis?

Falco lanceolatus?

} *Temm. et Schlegel.*

Head and neck brown; the cheeks and chin have a triple longitudinal marking of brown. Thighs, tarsi and inferior tails coverts transversely barred with dark fawn. A graceful pendant crest, composed of plumes of a brown colour. Bill blue at the base, black at the tip; the cere greenish yellow,

the iris golden; the toes yellow, and the nails black. *Hodgson.**

The above description is evidently of a young bird. An adult specimen which I sent to Mr. Blyth has been identified by that Naturalist with *Sp. Nipalensis*. This beautiful Eagle is rarely seen, and that, too, only on the Alpine parts of the Island. The only specimen I was so fortunate as to secure is now in the Museum of the Asiatic Society of Bengal. It is 30 inches long.

SPIZAËTUS LYMNAËTUS, var. *Horsf.* The Common Crested Eagle.

Syn. *Falco cirrhatus, Gmel.*

Falco cristatellus, Temm.

Falco caligatus, var. Raffles.

Falco niveus, var. Temm.

Nizaëtus Nepalensis, crestless var. Hodgson.

This Eagle is seen of several shades of colour and markings. Two most distinct varieties are seen in Ceylon, one much darker than the other and with a more developed crest. The darker variety may be thus described.

Hair brown above, white beneath. Head and neck of a rufous brown with narrow blackish mesial streaks. Chin, throat, and under part of body marked with broad dark rufous brown longitudinal streaks. Tail barred broadly. Under surface of alar and tail quills white and barred with dark brown. Under tail coverts rufous. Under wing coverts white and spotted dark brown. Thighs rufous and barred with pale white. Tarsi white and freckled with brown. Occipital crest black with white tips, 4 inches long. Length 1 foot 10 inches. Wing 13 inches.

* The whole of the under parts from the head downwards were beautifully barred rufous in the Ceylon specimen.

The above characters correspond closely with Mr. Blyth's description of a specimen of this Eagle received from Madras. (J. A. S. B. vol. 1845, page 175).

The paler and more numerous variety, is not unlike *Falco niveus*, Temm.

White predominating. Head and neck pale white or rufous with narrow mesial streaks of a more or less dark rufous colour. Base of dorsal feathers white and the tips of some of the longer ones also white. The cheeks, chin and throat immaculate. Breast and abdomen with a few rufous spots and mesial streaks. Thighs indistinctly spotted with light rufous. Tarsi white, immaculate. Occipital crest composed of white and black plumes, some of the latter also white tipped. Rather smaller than the dark variety.

There is also a crestless variety of this species, in colour resembling the last described bird.

The crested variety is rather abundant at certain seasons of the year in all the Maritime provinces and lower Kandyan Hills. It is a bold and powerful bird, attacking full grown fowls in the native villages. In the Northern provinces they are frequently seen on the topmost branches of the Banyan tree, where the nests of crows furnish them with dainty food. At Kaduganawa this Eagle is often seen soaring above Dawson's monument, sometimes alighting on its summit to devour its prey; it is not however a very common bird on the Kandyan Hills. I procured only a few specimens from Kandy and Trincomalee, whereas, as many as seven were shot by Mr. Layard on one tree in the Court yard at Point Pedro.

PONTOAËTUS LEUCOGASTER, Gmel. The White Bellied Sea Eagle.

Syn. *Falco leucogaster*, Gmel.

Falco Blagrus, Daudin.

Falco dimidiatus, *Raffles*.

Falco albicilla, var. *Latham*.

Ichthyaëtus cultrungis, *Blyth*.

Haliaëtus sphenurus, *Gould*.

Head, neck, and abdomen white. Back and wings ashy brown, primaries nearly black; most part of the inner web of secondaries white. Anterior two-thirds of tail dark brown, the rest white. Upper tail coverts brown, slightly tipped with white; lower white throughout; shorter lower wing coverts white, with a few ashy splashes; longer ones ashy brown. Thighs white. Tarsi and two toes yellow, claws black. Bill bluish. Length 3 feet 5 inches. Wing 1 foot 9 inches.

This is the largest of our Ceylon Birds of prey, common on the Northern Coasts, rarely seen on the South-Western parts of the Island; very abundant at the Salt lakes of Hambantotte, and the Bay of Calpentyne. Mr Layard writes, "In fact, wherever there is much shallow salt water, particularly if the receding tide leaves bare a large extent of mud, there will this Sea Eagle be found fishing in company with *Haliastur Indicus* and *Milvus Govinda*. Unlike them, however, the Fish Eagle prefers living prey to garbage, and is particularly destructive among the sea snakes, which are very abundant in the sea between Point Pedro and Point Calamanar on the opposite coast. We have frequently seen this bird capturing its prey. It keeps soaring very high, and then descends very rapidly, with its wings half closed and upraised, its legs pendant, and its body swaying to and fro, like the weight attached to a parachute. When close to the object of its pursuit, the legs are suddenly darted out, the prey seized near the head, the fall arrested, and without touching the mud or water, the noble bird soars upwards with its victim writhing in its claws. If it fails to kill the eel or snake when on high, the booty is dropped, and we have often secured a good specimen of marine snake from this mishap of the bird."

“The Sea Eagle constructs a large nest (to which it adds yearly) among the branches of some large tree, generally an aged Bo-tree (*Ficus religiosa*) is selected, and owes its security to the superstitious fears of the ignorant natives, who, in spite of all our promised reward, have invariably refused to ascend the trees, alleging that the guardian demons of the sacred tree would hurl them headlong down if they attempted to climb the tree for such profane purpose as robbing a bird's nest. We have, therefore, as our own climbing days are over, never been able to procure the eggs of this species.” [Mr. Layard in MS.]

PONTOAËTUS ICHTHYAËTUS, *Horsf.* Brown Tank Eagle.

Syn. Falco Ichthyaëtus, *Horsf.*

Plumage in general brownish; quills deep brown; head grey; chin whitish; neck brownish grey; breast and belly pale ferruginous brown; lower part of the latter, the vent and thighs white; tail dusky at the tip. Length 2 feet 4 inches. *Latham.*

The only specimen secured by Mr. Layard is now with Mr. Blyth.

Found in the large tanks in the Northern parts of the Island.

CIRCAËTUS CHEELA, *Latham.* The Undulated Bacha.

Syn. Falco cheela, *Latham* and *Gmelin.*

Hæmatornis undulatus, Vig.

Circaëtus Nepalensis, Hodg.

Falco albidus, Temm.

Falco Bacha, Daudin. (African Race.)

Falco Bido, Horsf. (Malabar Race).

Head black, occipital crest tipped white or fulvous. Back fuscus brown. Small wing coverts spotted white. Upper

tail coverts tipped white. Neck and breast dark rufous brown with palish tips. Abdomen, lower wing and tail coverts rufescent and spotted with small round white spots, (a blackish ring round some of the white spots). Wings and tail barred broadly with black and cream colour. Tip of tail feathers whitish. Thighs rufescent and spotted with white ocelli. Length 1 foot, 10 inches. Wing 1 foot, 2 inches.

Very common in the Northern parts of the Island. Rarely seen on the Kandyan Hills. There is a lighter coloured allied species found at Trincomalie which Mr. Blyth has named

HÆMATORNIS SPILOGASTER, *Blyth.*

In this species the tips of all the feathers of the head and neck are more broadly tipped with fulvescent white. The breast and abdomen of a lighter rufous colour, and more thickly spotted with white. Mr. Blyth in describing this new species, which I considered only a local variety of *C. Cheela*, observes, that "it is rather smaller than *H. Cheela*, (Latham, *vel undulatus*, Vigors) and remarkable for having the under parts as in the adult of that species, while the upper parts, throat and tail retain in the adult the same colouring as that of the young of *H. Cheela*, a phase of plumage which we have never seen among the multitude of Bengal specimens of *H. Cheela* examined, but which is exhibited in the two now received from different parts of Ceylon." Irides yellow.

There is another specimen in my possession which cannot be referred to either *H. Cheela* or *H. Spilogaster*, and which I shall now describe.

CIRCAETUS, (?) *Sp.; probably new.*

Upper parts like *H. Spilogaster*. Breast with broad dark rufous brown drops, and rufous mesial lines on the outer abdominal feathers. Ventral, lower tail coverts and thigh feathers barred with rufous. Lower wing coverts brown, and ocellated with white. Tail and wing quills as in *H. Cheela*.

Bill yellow, with blackish tip. Feet yellow. Irides golden. Length 2 feet 1 inch. Wing 1 foot. Found at Trincomalie in company with *H. Spilogaster*.

HALIASTUR INDUS. *Bodd.* Shiva's Fishing Eagle.

Syn. *Falco Indus*, *Boddaert*.

Falco Ponticerianus, *Gmelin*.

Haliaëtus girrenara, *Veillot*.

Haliaëtus garruda, *Lesson*.

Milvus rotundicaudatus, *Hodg.* (young.)

Head, neck, and breast white with narrow brown mesial streaks. Back, tail, legs, and under tail and wing coverts bright rufous chesnut. Shafts of dorsal feathers, and upper wing coverts black. Wing rufous, with the exception of the outer quills, which are blackish. Bill pale yellow at the tip. Irides pale yellow. Tarsi and toes pale yellow. Claws black. Length 1 foot 5 inches. Wing 1 foot.

This handsome Eagle is found with the common Fishing Kite (*Milvus Govinda*) in all the Maritime provinces, and very abundant at Trincomalie and Jaffna; as many as twenty or thirty are sometimes seen together. Although fish is their favourite food, they are not unfrequently seen to eat carrion, or even carry away poultry.

SUB-FAM: FALCONIDÆ.

FALCO PEREGRINUS, *Linn.* The Peregrine Falcon.

Syn. *Falco barbarus*, *Linn.*

Falco communis, *Brisson*.

Falco calidus, *Latham*.

Falco lunulatus, *Daudin*.

Upper parts ashy. Head and neck shaded with white; a black patch under the eye. Beneath white with brown or blackish streaks. Wings ashy, inner web of quills barred

with white, or rufescent white, upper wing coverts and scapularies, white or rufescent. Under wing coverts white, and barred with brown. Tail and upper tail coverts, ashy brown with white transverse bars; tip white. Bill blueish. Tarsi and toes yellow; claws black. *Female.*

Males are darker throughout and blackish on the head. Dorsal feathers spotted and barred with black.

Length 1 foot $4\frac{1}{2}$ inches. Wing 1 foot.

This widely distributed Falcon is found in the Northern and North-Eastern Provinces. Seldom more than a pair seen at a time. They are generally found on open plains in search of birds and small reptiles.

FALCO PEREGRINATOR, *Sundeval.* The Shaheen Falcon.

Syn. Falco shaheen, *Jerdon.*

Falco sultaneus, *Hodgson.*

My indefatigable friend Mr. Edgar Layard obtained a specimen of this elegant Falcon in Saffragam near the foot of Adam's Peak, but which I have not had the pleasure of inspecting.

The young male of this bird is thus described by Dr. Jerdon.

Young male. Plumage above generally of a dark cinereous or dusky blackish hue, darkest on the head, hind neck and cheek striped; most of the feathers are narrowly edged with rufous, those on the lower part of the back and rump more broadly so. There is some rufous on the forehead, and on the back of the head where it forms a sort of crucial mark. Tail paler than the rest of the body, faintly barred with rufous, and tipped the same. Chin and throat pale rufous yellow, unspotted; cheeks of the same tint, with narrow dark stripes. The rest of the plumage beneath bright rufous or chestnut, with longitudinal dark brown markings on the centre of the body, oblong spots on the sides, and arrow-shaped markings on the lower part of the abdomen. Under

wing coverts, rufous, barred with brown; quills barred with rufous on their inner webs. Bill bluish, darker on the tip; cere and orbital skin pale yellow; irides dark brown; legs and feet yellow. Length 15 inches. Wing 11 inches. Tail $5\frac{1}{2}$ inches. Tarsus nearly 2 inches. Centre toe and claw $2\frac{1}{2}$ inches. Weight 1lb.

The young female "differed from the male in having the chin, throat and cheeks white, in the rufous edgings to the feathers being very indistinct, and the plumage generally being of a darker hue."

"After the first moult, the markings of the lower surface disappear, except a few on the lower part of the abdomen and leg feathers, the plumage above becomes more of a bluish tinge, and the edgings and barrings disappear; with further moultings, the shade of the plumage above becomes still lighter, and of a slaty blue, the markings beneath vanish entirely, and the rufous tint of the breast becomes paler."

This handsome Falcon "is found throughout the whole of India, from the Himalayas to the extreme south of the Peninsula. It is well known to native Falconers." In Ceylon we presume it is a rare bird, as Mr. Layard only met with one specimen during his eight years' residence in the Island.

TINNUNCULUS ALAUDARIUS, *Brisson*. The Kestrel Falcon.

Syn. *Falco alaudarius*, *Brisson*.

Falco Tinnunculus, *Linn*.

Falco fasciatus, *Reszius*.

Falco bruneus, *Bechotim*.

Falco rufescens, *Sicainson*.

Falco interstinctus, *McClelland*.

Head and neck pale ash with blackish shafts. Cheek paler, a darker streak from the mouth downwards. Back and upper wing coverts cinnamon brown with triangular black spots at

the terminal edge of feathers. Wing quills brown, inner web dentilated with white. Under parts of body pale rufous, with black streaks and spots. Under wing coverts white with brown spots. Tail ashy grey with black subterminal band and white tip. Bill bluish, tip black. Irides yellow. Tarsi and toes yellow. Claws black. Length 1 foot 2 inches. Wing $9\frac{1}{2}$ inches. The female is a more elegant bird and differently maculated.

Upper parts rufescent with dark brown streaks on the head, and blackish bars on dorsal feathers and upper wing coverts. Breast and abdomen rufescent white with brown mesial streaks. Wings dark brown or blackish above and whitish beneath; inner web of quills barred, zigzag white or rufous; lower wing coverts white with small brown spots. Tail rufous, with blackish bars, and a broad black subterminal band; tip whitish. Rather smaller than the male.

The Kestrel, a well known bird of Europe and America, is also very common in India and Ceylon. I have found it in all the Maritime provinces, and also at Kandy and Newera Ellia. They are frequently seen in pairs on open plains in search of field rats, toads, and the young of *Monitor Dracæna*. I have found the Kestrel's nest on the rocks of Trincomalie, and also on the sea-girt batteries of that old Fort.

HYPOTRIORCHIS CHICQUERA, *Shaw*. The Small Red-Headed Falcon.

<i>Syn.</i>	<i>Falco ruficollis, et</i>	} <i>Swainson.</i>
	<i>Falco macrodactylus.</i>	
	<i>Falco cirrhatus, var.</i>	} <i>Latham.</i>
	Fasciated Falcon.	

Head and upper parts of neck dark rufous, under parts of neck white. Back ashy grey. Breast, abdomen, lower tail coverts and thighs white, with dark ashy bars. Wing dark ashy brown; inner web of quills white with ashy bars. Upper

wing coverts ashy and minutely barred brown; lower wing coverts white and barred with brown. Tail ashy above with narrow transverse streaks, paler beneath. Tip whitish and a broad subterminal band. Bill yellow, with black tip. Tarsi and toes yellow; claws black.

Length $11\frac{1}{2}$ inches. Wing $7\frac{1}{2}$ inches. A pair of this beautiful Falcon were seen by Mr. Layard at Point Pedro, where even it is a very rare bird.

SUB-FAM: MILVINÆ.

ELANUS MELANOPTERUS, *Daudin*. Black-Winged White Kite.

Syn. *Falco clamorus*, *Shaw*.
Falco melanopterus, *Daudin*.
Falco vociferus, *Latham*.
Elanus cærius, *Savigny*.

Above ashy white. Beneath white. Upper wing coverts and ridge black. Tail white, middle feathers greyish. Bill black. Tarsi and toes yellow. Claws black. Irides orange, a black superciliary streak.

Length 1 foot. Wing 10 inches.

This dove-like Falcon is very rare in the Island. I have only one specimen of it from Kandy, and Mr. Layard shot only one near Jaffna.

MILVUS GOVINDA, *Sykes*. The Cheela or Govinda Kite.

Syn. *Milvus cheele*, *Jerdon*.
Milvus melanotus, *Temm*.
Hiliaëtus lineatus, *Gray*.
Falco ater? *Gmelin*.
Falco niger? *Brisson*.

Dark brown, with a rufescent shade, edge of feathers pale. Beneath with darker mesial streaks. Tail slightly forked, indistinctly barred blackish. Bill black. Tarsi and toes yellow. Claws black.

Length 1 foot 10 inches. Wing 1 foot 4 inches.

This Kite is very common in all the Maritime provinces. I have not seen it on the hills. It feeds chiefly on fish, and the fishermen with difficulty keep these rapacious birds from stealing fish from their nets. As the fishing boats draw near the shore, hundreds of these Kites are sometimes seen to hover around and manage to get a good feed, with very little exertion on their part, in spite of all the resistance the industrious fishermen can offer.

BAZA LOPHOTES, *Temm.* The Cohy Falcon.

Syn. Baza syama, *Hodgson.*

Falco lophotes, *Temm.*

Lophotes Indicus, *Lesson.*

Head black with a crest composed of a few long black feathers. Chin and neck black. Breast rufous, white barred. Abdomen and vent black. The whole of the upper parts black. Wing black with a greenish shade; scapularies rufous and partly white and black. Bill greenish yellow. Tarsi and toes greenish.

Length $12\frac{1}{2}$ inches. Wing 9 inches.

The only specimen I have seen of this small black crested Falcon was a preserved one in Mr. Layard's collection, which he shot, I believe, in the Wanny district.

SUB-FAM: ACCIPITRINÆ

ASTUR TRIVIRGATUS, *Temm.* The Indian Goshawk.

Syn. *Astur cristatus*, *G. R. Gray.*

Astur Indicus, *Hodgson.*

Astur palumbarius, *Jerdon.*

Spizaetus rufistinctus, *McClell.*

I do not remember seeing a specimen of this bird in Ceylon. Mr. Layard says he saw a live one at Anarajapoor, and I believe, Mr. Blyth received a preserved specimen of this Hawk from Ceylon.

The following is the original description of McClelland's bird. (*Spizaetus rufistinctus*), which Mr. Gray makes a synonym of *Astur trivirgatus* of Temm.

Upper part of the body dark brown, with slight undulations of deeper tint, breast and throat longitudinally striped with brown; belly and under surface of the wings white, transversely barred with brown; tarsi feathered to the lower third, each feather marked with five transverse bars, the rest shielded; the beak short, much hooked and sharp; claws and toes strong and formidable.

ACCIPITER BADIUS, *Gmel.* Brown's Sparrow Hawk.

Syn. *Falco badius*, *Gmelin.*

Falco Brownii, *Shaw.*

Falco Dussumieri, *Temm.*

Accipiter Dukkenensis, *Sykes.*

Dark rufous brown above, with pale edges to the feathers. Beneath white with brown drops. Wings darker brown on the upper surface; primaries white beneath and barred. Tail ashy and barred with black; lower tail coverts white. Thighs white and spotted slightly. (Young). In the adult, the breast is rufous and barred with white. Bill blue, tip black; irides yellow. Legs yellow. Length 14 inches.

This hawk is known in Ceylon as the "Sparrow Hawk." It is not an uncommon bird in the Kandyan hills and in the Northern Provinces.

ACCIPITER NISUS, *Linn.*

I had once a small live hawk sent from the Kandyan country, but which flew away before I had positively deter-

mined the species; it had a close resemblance to the European Sparrow Hawk. Mr. Layard says he has not seen this hawk in the Island. To enable others to identify this bird in Ceylon the following description from Stark's Elements of Natural History is here added:

"Bluish, cinereous above; a white spot on the neck; white beneath, with brown undulations; tail ashy grey, with five bars of blackish cinereous; cere yellowish green; feet and iris yellow. About 12 inches long."

SUB-FAM: CIRCINÆ.

CIRCUS SWAINSONII, *A. Smith.* Swainson's Hen-Harrier.

Syn. Circus pallidus, *Sykes.*

Circus albescens, *Lesson.*

Circus Dalmaticus, *Ruppel.*

Falco æquipar, *Cuv., M.S.*

Falco cyaneus, *var. A. Lesson.*

Pale ashy above; white beneath. Inner web of some of the primaries dark brown. Upper tail coverts white, with transverse ashy bars. Tail ashy, indistinctly barred; outer rectrices whitish speckled and barred with ash. Bill blackish. Tarsi and toes yellow; claws black. Length 1 foot 1 inch. Wing 1 foot 2 inches.

Generally found on the plains of the low country, and rarely in the Kandyan provinces. It feeds on small birds, frogs and lizards.

CIRCUS CINERASCENS, *Gould.* The Ashy Brown Harrier.

Syn. Falco cinerascens, *Mont.*

Circus Montagui, *Vieil.*

Ashy brown above. Under part of the neck and breast ashy, with rufous mesial streaks to the feathers of the latter.

Abdomen, under surface of tail, lower wing and tail coverts white. Upper surface of tail rufous brown and broadly barred; tip white. Thighs white, streaked. Bill blackish; irides light yellow. Tarsi and toes yellow, claws black.

Length 1 foot 6 inches. Wing 13 inches.

Females are more or less of a rufous brown on the back; they have also a nuchal ring and broader black bars on the tail, and the whole of the abdomen of a light rufous colour. Head rufescent. In young birds the upper tail coverts are white. Probably the latter characters are also present when the bird is moulting. This species in its ashy plumage is not unlike the darker varieties of *Circus Swainsonii*.

The species is common in Kandy and Trincomalie. Reptiles and birds are its chief food.

CIRCUS MELANOLEUCOS, *Pennant*. The White and Black Indian Harrier.

I obtained several specimens of this bird from the open plains in Minery, none of which, however, I now have for description, and therefore give its characters from Latham's work.

"Length 16 inches; bill black; irides yellow; head, throat, hind part of neck, and back black; breast, belly, thighs, and rump white; lesser wing coverts white, the middle ones black; the greater and secondary quills silvery ash colour; prime quills black. Tail pale silvery grey; legs rufous.

The female is somewhat bigger; general colour silvery grey; on the wing coverts three round black spots, and three others on the outer webs of the second quills; primaries black; sides of the belly, thighs and vent white, transversely striated with rufous red."

Like the other species of Ceylon Harriers, it is reported to feed on birds, reptiles, and small rats and squirrels.

ORDER. ACCIPITRES.

SUB-ORDER. ACCIPITRES NOCTURNI.

Nocturnal Birds of Prey.

FAM: STRIGIDÆ.

SUB-FAM: SURNINÆ.

ATHENE CASTANOTUS, *Blyth*. Ceylon Chestnut-winged
Hawk Owl.

Syn. Athene Castanopterus, *apud. Blyth*.

Head, neck and breast barred with brown and rufescent white. A white spot under the ears. Back and wings bright chestnut and faintly barred with brown. Abdomen white, maculated with brown spots and streaks. Under wing coverts white, with a few brown spots. Vent and lower tail coverts white. Tail and upper tail coverts dark brown and streaked with narrow whitish bars. Thighs whitish and freckled with brown. Bill yellow. Tarsi yellow. Length $7\frac{1}{2}$ inches. Wing 5 inches.

This Hawk-Owl was added to the Ceylon Fauna by Dr. Templeton. It feeds on small lizards and insects. Not uncommon at Colombo. I have also seen it at Newera Ellia, Galle and Kandy.

ATHENE SCUTELLATA, *Raffles*. The Hairy-legged Owl.

Syn. Ninox Nepalensis, *Hodgson*.

Strix scutellata, *Raffles*.

Strix hirsuta, *Temm*.

Strix lugubris, *Tickell*.

Athene Malayensis, *Eyton*.

Upper part of head and neck ashy brown; chin white. Back, scapularies and upper tail coverts rufous brown; dorsal

feathers have palish edges and white spots. Primaries have brown above, with pale rufous bars, under surface white barred. Under wing coverts fulvescent and streaked with brown. Under surface of neck and breast rufous brown, with fulvescent white edges to the feathers. Abdomen white with large rufous brown spots. Tail dark ashy brown, with broad blackish bars; tip whitish. Upper tail coverts rufous brown and spotted white; under tail coverts white. Thighs rufous. Bill bluish black, with a yellowish culmen. Irides greenish yellow. Toes yellow, curved, with yellow bristly hairs. Claws black. Length 11 inches. Wing $5\frac{1}{2}$ inches.

Not uncommon in the Cinnamon gardens at Colombo. Feeds on insects and lizards.

SUB-FAM: BUBONINÆ.

EPHIALTES LEMPIJI, Horsf. The Lempiji Owl.

Syn. *Strix noctula*, Reinw.

Scops Javanicus, Lesson.

Scops Lempiji, Horsf.

Brown spotted with fulvous and black. Breast and abdomen fulvous with blackish mesial streaks and inconspicuous bars and specks. Vent whitish. Outer web of primaries barred with light fulvous, inner web clouded dusky. Tail clouded with pale fulvous brown. Tarsi pale, freckled. Bill brown; irides reddish brown. Toes brown, claws brown.

Length $7\frac{1}{2}$ inches. Wing $5\frac{3}{4}$ inches

Some of the specimens are less fulvescent than others, and the blackish spots more numerous, and with a more distinct black patch on the top of the head.

This is the most common of all Ceylon Owls; less common, however, in the higher parts of the Island than in the Maritime provinces. It feeds chiefly on Coleopterous insects.

EPHIALTES SCOPS, *Linn.* The Scops Eared Owl.

Syn. Scops pennata, *Hodgson.*
Scops Aldrovandi, *Ray.*
Scops Europeus, *Lesson.*

Rufous brown, minutely speckled and streaked with dusky brown and rufous. Lower parts paler; abdomen, vent and lower tail coverts more white spotted; small white spots on the outer web of primaries; inner web of secondaries white barred. Tail barred and speckled with white and rufous. Bill brown. Irides yellow. Toes brown; claws dark brown.

Length $5\frac{1}{2}$ inches. Wing 4 inches.

This elegant little owl is rare in Ceylon. I met with only one specimen (alive) at Trincomalie which Mr. Blyth has seen and identified with *Scops pennata*, *Hodg.* Mr. Layard has not been so fortunate as to meet with this species, nor has he seen the next.

EPHIALTES SUNIA, *Hodgson.* The Yellowish Red Eared Owl.

Syn. Ephialtes scops, apud *Blyth.*

General colour, a bright ferruginous red, with black shafts to most of the plumage. It is less speckled and barred than *Scops pennata*. An albescent line on the scapularies, with black tips. Abdomen whitish yellow. Rather smaller than the last.

I have not seen this beautiful owl lower than Dimboola (4000 feet). It is not common. Mr. Layard has not met with it in Ceylon. The specimen I sent Mr. Blyth was identified by him with *Scops sunia* of Hodgson, which he still thinks is only a variety of *Ephialtes scops*, *Linn.*

KETUPA CEYLONENSIS, *Gmel.* The Large Eared Owl

- Syn.* *Strix Ceylonensis*, *Gmel.*
Strix Leschenaultii, *Temm.*
Strix Hardwickii, *Gray.*
Strix dumeticola, *Tickell.*
Cultrunguis nigripes, *Hodgson.*

Above light ferruginous brown, with dark brown mesial streaks and pale spots on the dorsal feathers. Under part of neck whitish. Breast and abdomen light rufescent, minutely barred; each feather with a blackish longitudinal streak. Wing quills freckled and barred white and brown. Tail brown, with narrow ferruginous bars; tip rufescent. Bill blackish. Irides bright yellow. Length 1 foot 7 inches.

This large owl is very abundant in the Island, particularly in the Maritime provinces. It feeds on fish, rats, mice, &c.

SUB-FAM: SYRNINÆ

SYRNIUM INDRANI, *Sykes?* The Devil Bird.

I have not seen this bird alive, though it is common enough in the forests. A specimen of this was many years ago in the Museum at Colombo. Above dark brown, barred. Abdomen whitish, barred. Toes densely covered with plumage. Irides yellow. Claws black. Length about 1 foot.

SUB-FAM: STRIGINÆ

STRIX JAVANICA. *De Wormb.?* The Yellow Barn Owl.

- Syn.* *Strix flammeus*, *var.*
Strix candida, *Tickell.*

Upper parts ochry yellow, speckled with grey, white and brown spots. Face white, margined with a rufous circle.

Under parts yellowish white and spotted with brown. Inner web of primaries indistinctly barred. Tail speckled with dark grey, and slightly streaked. Thighs white. Bill horn colour. Irides pale yellow. Tarsi and toes yellowish brown; claws pale yellow. Length 1 foot $2\frac{1}{2}$ inches. Wing 11 inches.

Found by Mr. Layard in the old Fort at Jaffna. The above description is taken from the only specimen he procured.



Some account of the Rodiyas, with a specimen of their language.

By SIMON CASIE CHITTY, Esq.

It is commonly believed that the Rodiyas were originally one of the Singhalese castes, who, according to one tradition, as noticed by Knox, were expelled from society for having imposed on a certain King, by substituting human flesh for venison, which it was their duty to provide for the royal table; or who, according to another tradition, as noticed by Davy, were made outcastes because they continued to indulge in eating beef after its use was prohibited; or who, according to another tradition, as noticed by Upham, were driven into the jungle on account of their leprosy, engendered by bestial practices; but the striking dissimilarity of their physical characteristics from the Singhalese, being much more robust and vigorous, at once militates against the belief that they are of the same nation, and marks them out as a distinct and peculiar race of people. My opinion of the Rodiyas therefore is, that they are either a colony of some of the wandering hordes from India, or a fragment of the aborigines of Ceylon itself, partially blended with the Singhalese females of high caste whom the kings in former times had degraded to their rank and community, not only for high treason, but also for sacrilege, as was the case with seven members of the family of Nahalle

Mudianse of Madura Korle, who had melted certain golden images of Buddha belonging to a temple.

The Rodiyas are found only in the Interior, scattered over different parts of the country; their numbers, however, are not very considerable; for according to the information within my reach, it would be too much to estimate them beyond a thousand, and it is remarkable that they are gradually decreasing, especially in the Seven Korles. They have two subdivisions amongst them, one called *Tirringa Rodi* and the other *Halpagay Rodi*, and though they both live as one people, yet there are some, who claiming their descent from a certain degraded princess, named Navaratna Valli, would not intermarry with the rest.

Nothing could have been more wretched and debasing than the condition of the Rodiyas under the Kandyan despotism, which prohibited them, not only from possessing lands, or carrying on any trade for their subsistence, lest they should arise from the mendicant state to which they were condemned, but also from dwelling in the same villages with the other people; nay, even from drawing water out of their wells, as if they were the vilest of human beings, whose very touch would be pollution. Our government, however, does not recognize these unjust and cruel prohibitions; but, nevertheless, they have still such a controlling influence over the minds of the Rodiyas from long habit, that they are never infringed, and if there be any instance to the contrary we must look for it only amongst the few who are located in the neighbourhood of Europeans.

The Rodiya villages are always remote from those of the Singhalese, who contemptuously call them *Kuppayams*, which signifies, "the habitations of outcastes." A *Kuppayam* usually contains from ten to fifteen hovels, which, however, exhibit a neat appearance, having often small plots of ground planted with betel vines and plantain trees attached to them.

In their person, as already observed, the Rodiyas are more robust and athletic than the Singhalese, and remarkable for

their bold bearing and expressive countenances; but the mendicant life which they lead has so completely cramped their physical energies that they are exceedingly averse to labour. Their women are generally handsome, which, with their winning address, has often enticed many a Singhalese youth to go and live with them in their Kuppayams, abandoning his family and connexions, and enduring with stoical indifference the reproaches and disgrace consequent upon his conduct. In their dress, the Rodiyas exhibit nothing peculiar; it is the same as that of the lower orders of the Singhalese, with the exception, that the men have no covering for their heads, and the women for the upper parts of their bodies. Some of the young girls, however, in the Central Province, do not at present allow their bosoms to be exposed, but have a gaudy handkerchief gracefully tied round them. Both the men and women let their hair grow to its full length, and tie it up behind into a knot, and the women wear a brass or tin trinket, called "*Kooroo*," and a roll of dyed palm leaf, called "*Kōla*," on each ear, a string of chank or glass beads about the neck, and a brass armlet above the right elbow.

With regard to their diet, my informant, who is himself a Rodiya, from the Seven Korles, denies that they ever eat carrion, or any animals but elk, deer, pig, hare, monkey, squirrel, mongoose, civet, cat, guana; and tortoise. Mr. Jayetilleke, the intelligent Modliar of the Kornegalle Cutcherry, whom I have consulted on the subject, says, however, that they eat every thing that comes in their way, and that they relish nothing so much as dead cattle in a putrified state; and it should be remembered, that Knox also mentions the frequent contests they used to have with the weavers, in his time, for this loathsome food. The wild animals they either hunt with dogs, or shoot with bows and arrows, in the use of which they are reputed to be as expert as the Veddahs. Under the Kandyan Government they were, however, not permitted to hunt or shoot any game, and it was no doubt

owing to this circumstance that they betook themselves to feeding on animals which have died a natural death.

Marriages among the Rodiyas is not attended with many ceremonies; the day fixed having arrived, the bridegroom accompanied by his friends goes to the bride's house in the evening, taking with him a suit of apparel, and a pingo or two of cakes and plantains, which he presents to the bride. Her parents then entertain him and his friends with a repast, and he, having stayed with her that night in her house, conducts her the next day to his own. It, however, often happens amongst them for two young people to meet together, and agree between themselves to live as husband and wife without consulting their parents or observing any ceremony at all. The Rodiyas marry but one wife, though it is not uncommon with them to have two at the same time, and also for several brothers to cohabit with the same woman. Amongst a people so debased as the Rodiyas, it is probable that incestuous intercourse exists, but still, I do not think that it is practised by them to the revolting extreme described by Knox, who, perhaps, derived his information from prejudiced sources. It must, however, be observed, that prostitution is openly carried on by the Rodiya women, and their parents and husbands not only wink at it, but encourage them in their lewd propensities.

The Rodiyas always bury their dead. They never wash the corpse, but merely wrap it up in a mat, and carrying it on a pole to the jungle next adjoining the kuppayams, inter it there. On the seventh day after the burial, the friends of the deceased assemble together in his late dwelling, and partake of a repast which is prepared for them by his nearest surviving relatives.

The Rodiyas have generally the reputation of being skilled in charms and philters, but they are lamentably ignorant of medicine, and in case of illness, are therefore obliged to consult the Singhalese medical men, of whom, however, none above the Durea caste condescend to attend on the patient in his Kuppayam, but merely furnish his friends with the neces-

sary medicines on their describing the symptoms of the disease. Even the Durea medical men, I am informed, will not go further than the entrance of the Kuppayam, where the patient is brought up for them to look at him and prescribe the remedies.

The Rodiyas follow no other pursuit than strolling about the country, to beg, or tell fortunes, and manufacturing rattan baskets, and winnows, and whips, and ropes of hides and of various vegetable fibres, which they barter for grain. When they go to beg, which they chiefly do at harvest time, they may be seen in groups, both men and women, with their children; the men carrying their chatties and pots, and whatever else they possess, in baskets hanging on a pingo at one end only; it being contrary to custom for them to load their pingoes at both ends, as the other people do. On these occasions, the women sing and dance, as well as exhibit their juggling exploits, by balancing and spinning a brass plate on one finger, or tossing up a number of balls in the air, and keeping them in continual motion, without suffering them to fall on the ground: whilst the men are beating the Bummedia, a kind of drum made of an earthen vessel, covered with monkey skin. Since the British accession, however, some few of the Rodiyas in the Central Province have turned their attention to agriculture, and are cultivating, near their Kuppayams, small patches of paddy lands let to them by the Gamaralles,* who, however, instead of taking a share of the crop for the rent, receive from them an annual supply of ropes of hides, as it would be inconsistent with the notion of defilement which they connect with the touch of a Rodiya, for them to make use of the crop raised by him.

The Rodiyas rear pigs and poultry in almost all their Kuppayams, and some of them also keep cattle; but in order to distinguish their cattle from those belonging to the Singalese, they are obliged to have a cocoanut shell perforated and hung on their necks by a strap of hide.

* Proprietors.

The Rodiyas have their own headmen, called Hulawalias, and under the Kandyan Government the appointment of these headmen was in the patronage of the Koralle of the Pattoo; but it now rests with the Government Agent for the Province or his Assistants. The Kandyan Government exempted the Rodiyas from all services, except furnishing the royal stores with ropes of hides for ensnaring elephants; but at present they pay the Road Tax in common with the other classes of Her Majesty's subjects.

Under the Kandyan Government, as the Rodiyas were not permitted to enter the precincts of the Courts, they had their disputes settled by the nearest Durca headman, and if they ever ventured to resort to the Vellala chiefs for justice, they were obliged to utter aloud their complaints, standing at a distance, with uplifted hands, or remaining prostrate on the ground. They have now, however, free access to our tribunals, and no distinction is made between them and the Singhalese high caste men: they are placed at the same bar for trial, and, when sentenced to imprisonment, confined in the same gaol.

The Rodiyas profess the Buddhist religion, but they are not allowed to enter a temple, and they therefore hear the Bana standing outside the Bana Madduwa. They however, offer up propitiatory sacrifices of fowls and salt fish to the devils, called Garra Yakko and Weddi Yakko, who they believe occasion diseases, and other mischiefs, and they also have recourse to invocations by cutting limes, as practised by the Singhalese, when any member of their families is taken ill. Some years ago a few Rodiyas in the Matelle district were converted by a Baptist Missionary; but I am informed that they have since relapsed into their heathenish practices.

Amongst the vices ascribed to the Rodiyas, theft is the principal; hence the appearance of a Rodiya in the neighbourhood of a village, always inspires dread. There is no doubt that the Rodiyas are, generally speaking, thieves, for in their present abject state, there is nothing to induce them to be honest,

and a Rodiya himself confessed to me that they do occasionally steal clothes from the bleaching grounds, and stacked corn from the threshing floors.

The ordinary language of the Rodiyas is Singhalese, which they, however, speak with a quick accent, intermixed with a number of words peculiar to themselves, in order to render their speech unintelligible to strangers. Some suppose that the words in question are mere slang; but I am rather inclined to think that they are the relics of a language which was spoken by the ancestors of the Rodiyas, and since merged into the Singhalese.

The following is a list of words used by the Rodiyas.

God	Bakkuru	බකුරු
Heaven	Teriangay	තෙරිසැත්තේ
Earth	Bintalauwe	බින්තලවුට
Sun	Ecláyatteriangay	ඵලසත තෙරිසැත්තේ
Moon	Hápateriangay	හාපතෙරිසැත්තේ
Stars	Hápangaval	හාපන්ගවල්
Light	Giggéri	ගිගිරි
Darkness	Kaluwella	කළුවෙල
Fire	Dulumu	දළුමු
Water	Néláttu	නිලතු
Sea	Teriláttu	තෙරිලාතු
River	Níláttuwa	නිලාතුට
Tank	Níláttukattinna	නිලාතුකට්ටිනා
Mountain	Teriboruluangay	තෙරිබොරළුවන්තේ
Village	Dumuna	දුමුන
Field	Panguralla	පහුරළල
Jungle	Raluwa	රළුව
Sand	Boraluwa	බොරළුව
Dust		
Mud		
Stone		
Man	Gavá	ගැව

Woman	Gavé	ගැව්
Boy	Bélenda	බිලෙන්දා
Girl	Bélendé	බිලෙන්දි
Body	Murutté	මුරුති
Hair	Kaluwelé	කළුවෙලි
Head	Kerédia	කෙරෙඩිය
Eye	Láwatté	ලාවට්ටි
Face	Irravuwa	ඉරවුව
Ears	Irravuwaanguval	ඉරවුවෙහි අන්තෙල්
Nose	Irravuwa	ඉරවුව
Mouth	Galla	ගළල
Tongue	Gallagewanna	ගලගෙවුනු
Hand	Dagula	දැගුල
Breast	Hiddulu	හිදුළු
Belly	Pekeritta	පෙකරිත
Flesh	Murutung	මුරුතුං
Milk	Hidduluangaval	හිදුළු අංතෙල්
Blood	Lathu	ලතු
Spittle	Gallé lathu	ගලලේ ලතු
Husband	Gádía	ගාඩියා
Wife	Gádikewenni	ගාඩි කෙටෙන්නි
Father	Hiddulu Gava	හිදුළු ගැව්
Mother	Hiddulu Gavi	හිදුළු ගැව්
Grandfather	Ileyak Hiddulu Gava	ඊලයක් හිදුළු ගැව්
Grandmother	Ileyak Hiddulu Gavi	ඊලයක් හිදුළු ගැව්
Brother	Ekangay gádía	එක අංගේ ගාඩියා
Sister	Ekangay gádi	එක අංගේ ගාඩි
Son	Gádé bélendá	ගාඩි බිලෙන්දා
Daughter	Gádi bélendé	ගාඩි බිලෙන්දි
Priest	Navatta	නවතා
Elephant	Palánuwa	පලානුවා
Cheetah	Raluwa bússá	රළුව බුස්සා

Bear	Murutíviganan-gaya	මුරිචිගනගයා
Wild hog	Gal Murutaya	ගල්මුතයා
Domestic pig	Hápa Murutaya	හාපමුතයා
Deer	} Raluwelúdda	රළුවෙද්ද
Elk		
Dog	Bussá	බුස්සා
Bitch	Bissí	බිස්සි
Cat	Buhákawanna	බුහාකවනනා
Jackal	Pangurulla bússa	පතුරුළු බුස්සා
Wanduro	Búléwa	බුලුවා
Rilawo	Náttuwa	නාතුවා
Bull	Lúdha	එද්ද
Cow	Lídhi	ලිද්දි
Calf	Lúdhubílenda	එද බිලුන්ද
Bull Buffaloe	Pangurul lúdha	පතුරු එද්ද
Cow Buffaloe	Pangurul lédhi	පතුරු ලිද්දි
Guano	Bimpallo	බිම්පල්ලෝ
Alligator	Niláttuterihápp-aya	නිලාතු ගෙරිහාපයා
Tortoise	Pélawa	පෙලාවා
Lizard	Aharubuluwa	අහරු බුළුවා
Snake	Iláya	ඉලයා
Cock	Pattéla	පතිලියා
Hen	Pattélikette	පතිලි කෙන
Chicken	Pattilibèlènda	පතිලි බිලන්ද
Fish	Niláttuwang	නිලාතුචං
Tree	Uhella	උහෙලු
Flower	Ulelangay	උලුලිලන්ගේ
Fruit	Lávuna	ලාලනා
Cocoanut	Mattulávuna	මටුලා ලනා
Jack fruit	Vettíangaval	වෙට්ටි අංගවල්
Plantain	Pabbrukan	පබ්බුරුකන්
Arreka nut	Pongalang	පොන්ගලං

Betel	Tebala	තෙබලා
Tobacco	Rebut	රෙබුත්
Paddy	Attumadhu	අතුමදු
Rice	Madhu	ඔදු
Corakan	Hunkeweena	හින්කෙවුන
Straw	Pangarang	පන්තරන්
Temple	Bakkuruwangay	බකුරුඅන්ගේ
House	Dumuna	දුමුන
Door	Mattilla	මතිලල
Cloth	Pottia	පොතිය
Mat	Pittawánna	පිට්ටොනන
Pot	Wámé	වාමේ
Water pot	Nilattu Wámé	නිලටු වාමේ
Rice pot	Mighitti Wámé	මිහිටි වාමේ
Mortar and pestle	Lukkanawangaval	එකකන අන්තවල්
Knife	Náduwa	නාදුව
Honey	Uhella lathu	උහෙලල ලතු
Jaggery	Galmeri	ගල්මිරි
Salt	Hurubu	හුරබු
Lime	Aharubulu	අහරු බුළු
Oil	Mattubu	මටුබු
Good	Teri	තේරි
Bad	Hapai	හාපයි
No	Navati	නාවති
To go	} Dhisenewá	දිස්සෙනවා
To walk		
To come	Tevínawá	තෙවිනාවා
To sit	Yappiunawá	යාපිනනවා
To sleep	Láwattinatewenewá	ලාවටනා න්වනවා
To dance	Kuttandupanawa	
To sing	Kelleneighilen-cwá	කෙලෙහි කේනේනවා


To laugh	Galupáhénawá	හළු පාහිනා
To weep	Irrawallukkan- awá	ඉරවල්ලුපිකකනවා
To see	Pekanawá	පෙකනවා
To open	Hápakaranawá	හාපකරනවා.
To cook	Navatkaránawá	නවත්කරනවා
To eat	Migannawá	මිගනනවා
To beat	Lukkanawá	එකකනවා
To kill	Ralukaranawá	රළුකරනවා
To die	Likkenawá	ලික්කනනවා
To bury	Távanawá	තාවනවා
To give	Yappanawá	යපනවා



*Notice of various Rock Inscriptions in the North Western
Province. By A. O. BRODIE, Esq.*

HAVING at various times when traversing the jungles of this Province met with inscriptions engraven on rocks, I have made copies of several and beg herewith to lay them before the Society, in the hope that some number may be able to decipher or translate them. I am afraid that the majority will be found to possess no interest whatever, and that some of them can scarcely be termed ancient. In most cases these inscriptions are much defaced; and though I have bestowed a considerable degree of trouble in tracing the characters, I should have felt averse to trouble the Society with such mutilated copies, were it not for the simple fact that I am utterly ignorant of the languages in which they are written, and may therefore hope that of each enough has been preserved to make it intelligible. I now proceed to

mention the place at which each inscription is to be found, adding such information regarding the locality or traditions current in the neighbourhood as may seem interesting, or may give a clew to the translator.

No. I. This long inscription is engraved on a stone block about ten inches square in section and standing five feet above ground; in fact just one of those short pillars of which thousands are to be met with in the forests of the District, and which from time immemorial have been used as supports for Vihares, Dewales, Banna-Maddoos, and other religious edifices. The letters are small and tolerably boldly cut, they are however rudely formed and unequal in size. I think that the want of skill in the workman must account for many of those variations from the common Singhalese characters which will be observed in the copy; thus in very many cases where a  or other letter with an upward loop occurs, a line is to be observed produced at a tangent to the curve. I hardly think this stroke to be intentional, but to have simply arisen from the chissel of the workmen slipping forward instead of following the proper curve. Some other unusual marks may be explained in the same manner.

A few of the characters, however, if indeed they be letters, are quite different from any to be found in the Singhalese alphabet. The pillar on which this inscription is engraved is at Pooliankoolum, a small village about ten miles N. N. E. of Chilaw and six miles east of the main road. It stands in the jungle close to the remains of an ancient Delhwale built by Ganniwelle Bâhu who reigned at Anooradhapoora, and of a more recent Dehwale. The native tradition is to the effect that the pillar was erected to commemorate the seizure of a local chieftain by Ganniwelle Bâhu, King of Mahdampe. Various places in the vicinity have names referring to the same event: such are Mandelane Kumarenkattoowe, &c.

Nos. II. III. IV. are engraved on three rocks at Parmakande Vihare, which lies about seventeen miles from Putlam

and two to the north of the road leading from the latter village to Kurnegalle. The Vihare is one of the so-called rock temples, being built under a projecting ledge of granite, which forms part of the roof. The dwellings of the priests, the Bannamaddoos, are at the foot of a natural talus of debris the former being built in the usual manner, forming a square with a small open and sunk court in the centre. These inscriptions are in the character most commonly observed in rock inscriptions in this District, and are unfortunately quite unintelligible to the priests.

No. II. Is carved high up the overhanging rock previously mentioned; the letters are large and deeply cut. The granite has however unfortunately scaled off in some places, and has probably to some extent mutilated the inscription.

No. III. Is on a small projecting knoll close to the entrance of the priest's dwellings, and seemed to be all but unknown to the natives, till I caused it to be cleared from the earth in which it was well nigh buried.

No. IV. Is on a smooth face of rock above a deep natural hollow, serving as a reservoir of water, about one hundred yards west of the last.

With regard to the first mentioned of these inscriptions, the natives believe it to have been cut either by the immediate predecessor of the present head priest, who is himself an aged man, or else at a time one generation more remote. Of the other two they can say nothing.

No. V. This I copied from a small loose block lying in the jungle, about fourteen miles south of Putlam and two from the main road. The block has unfortunately at one time been used by the natives for sharpening cayties, &c. a circumstance which explains its present condition.


A few scattered stone pillars in the vicinity prove that in some former age there was a Vihare in the neighbourhood. I am not aware, however, that the natives have any traditions

regarding the edifice. Of this inscription an account was in 1832 transmitted by Simon Casie Chitty, Esquire, to the Ceylon Literary Society. At that time the stone was probably less dilapidated than at present, and it would be well to obtain the copy then made. I have unfortunately not been able to ascertain where it was deposited when the Society was broken up.

No. VI. This inscription I lately found when visiting the Rock temple of Ehelegame near Nahnerie near the boundary between the Meddhe Patto of Rambemoole and Hattalis Pahai Corles. It is engraved on a slab placed in the centre of a platform, surrounded by dwellings for the priests, Vihares, &c.; the surface of the stone has weathered considerably and has, I am afraid, obliterated one line completely. In the jungle around this temple there are very many pillars, ruined Dagobas, &c.; shewing that at one time Ehelegame must have been a place of considerable importance.

No. VII. This inscription was lately pointed out to me when passing through the village of Palligame, about ten miles from Kurnegalle, and close to the Kandy Road. There I found extensive remains of ecclesiastical buildings, some being of much more ancient date than others. There are numerous neatly curved stones strewn about, and several wells cut to a considerable depth. The natives, as usual, believe that large sums of treasure are concealed near these ruins, and pointed out a rude figure of a man or demon which they suppose to bear some reference to the hidden wealth.

A great portion of the rock appears to have been at some time or other covered with inscriptions: of these a great portion is now lost. I could only trace with tolerable certainty so much as is here given. The spot itself bears the local name of Viharre Godde.







27- Inscription at Barmakande

Δοδδ {υ+τ} □ Δδδδ

δερδδδδ {υ+τ} δδδδ

- At Mangalore

IFP

8

5

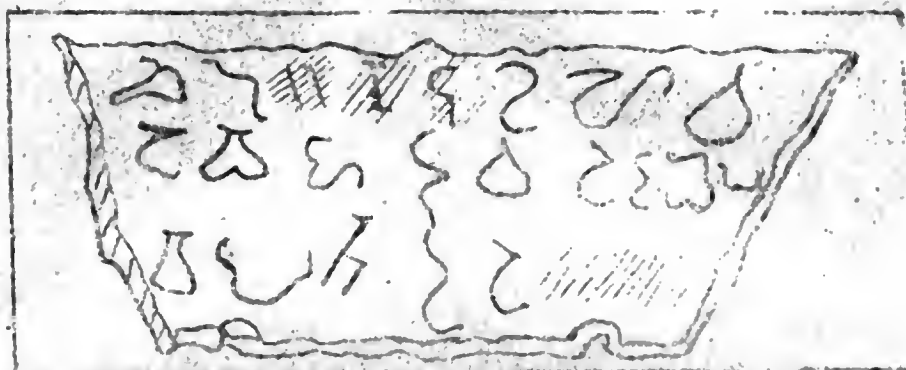
RF

IF

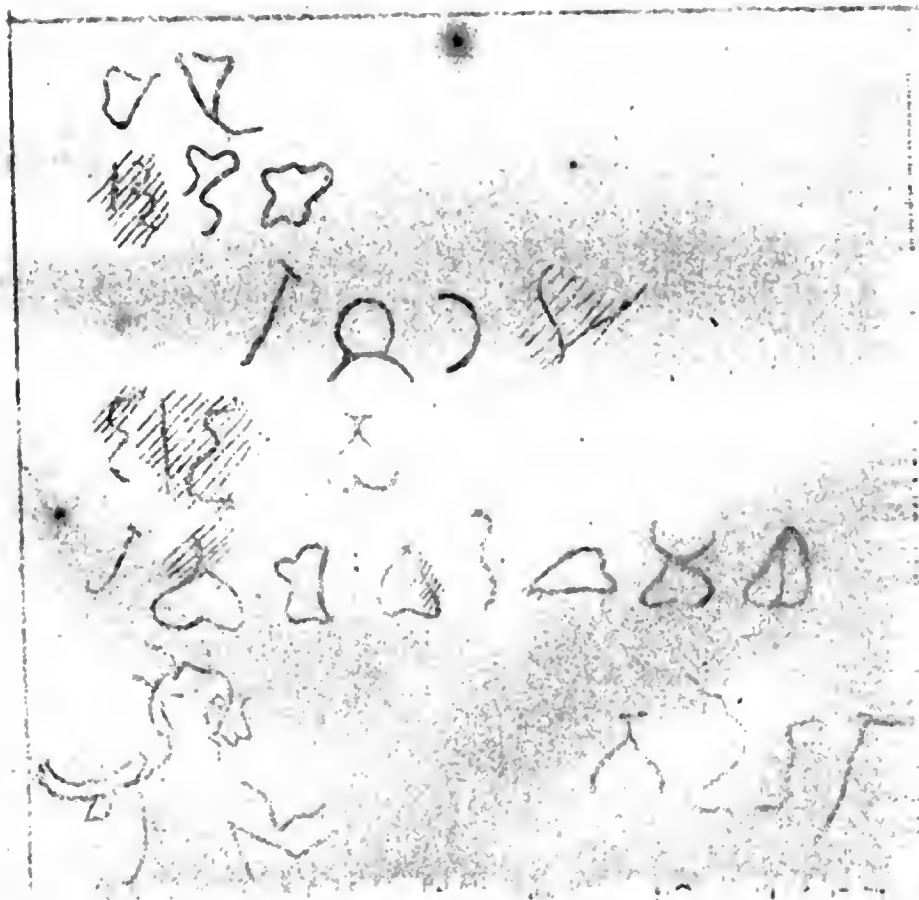
5



VI. - *Where ...*



VII. - *Where ...*



APPENDIX.



PROCEEDINGS OF MEETINGS
OF THE
CEYLON ASIATIC SOCIETY.

ANNUAL GENERAL MEETING,
HELD 7TH FEBRUARY 1852.

Present:—Rev. Dr. MACVICAR in the Chair.

The Hon'ble Mr. Justice Starke, Hon'ble Mr. Selby, Mr. J. De Alwis, Mr. Dawson, Mr. Dalziel, Mr. L. De Soyza, Mr. R. E. Lewis, Rev. Mr. Kats, Rev. Dr. Kessen, Mr. E. L. Layard, Mr. J. O'Halloran, Capt. Jas. Steuart, Rev. D. J. Gogerly, Mr. C. P. Layard.

The Minutes of the last Meeting having been read and confirmed, the Secretary proceeded to read the following Reports of the respective Committees.

Report of the Committee of Management.

In presenting to the Society an account of their labours since the last General Meeting, your Committee are unavoidably reminded of the loss which the Society has sustained in their late Secretary Mr. John Capper. The difficulty in finding a gentleman with sufficient leisure, with inclination for literary and scientific pursuits, has been much felt in carrying on the business of the Society, since the late Secretary's departure, and the Committee take this opportunity of recording their high sense of his usefulness, and their regret in losing him.

Your Committee have also felt the absence at distant out-stations, of some of those Members of the Society, who by their individual exertions materially assisted the Society in its progress.

Since the last Anniversary Meeting four new Members have joined the Society, and three others have to be proposed at the present Meeting.

Several interesting papers have been contributed to the Society's Transactions, and some of these, it is a pleasure to observe, are the productions of Native gentlemen, and treat of the Antiquities of the country, or its Ancient Literature. Two gentlemen, well qualified for the undertaking, have contributed papers on the Natural History and Geological Structure of Ceylon, and others, with great success, have devoted themselves to Statistical information, bearing upon the social condition of particular Districts of the Island.

The Committee deem it one of the most important features of the Society, thus to bring out native talent. Your Committee are persuaded, not only from recent experience, but from observing the literary contributions made to the Society from its commencement, that much talent among the Native community requires, in order to bring it out, only opportunity and encouragement, such as the Society is eminently calculated to afford, and they would earnestly solicit the united exertions of the Members for its maintenance and success.

During the past year the Secretary has been in correspondence with Government, with a view to obtain the use of its room without interruption from the Loan Board; an inconvenience which has long interfered with the Society's usefulness, the intercourse of its Members with each other, and the full advantage of its Library and Museum; but your Committee have still to express their regret in not accomplishing the object they have long had so much at heart.

Conformably with a motion at a General Meeting, His Excellency the Governor was requested to become Patron

of the Society, and His Excellency has expressed his pleasure in accepting the office.

The contributions to the Society's Library and Museum, since the last Meeting, the Committee regret to say, have not been so large as they would have had pleasure in announcing, though all the corresponding Societies in India and England have forwarded copies of their Transactions. The Meeting is aware that the attention of Members was directed to the collection of objects to represent the productions and industry of the country at the Great Exhibition of 1851. To promote this undertaking a Sub-Committee was appointed, whose Report will now be presented to the Society.

The Society has been duly supplied with the Meteorological Registers kept at Trincomalie and Batticaloa, to the end of 1850, and very full tables are taken at the Master Attendant's Office, Colombo. Owing to circumstances mentioned before, the supply of instruments to out-stations, by which it had been intended to complete the series of observations in the Island, has not received the attention the Committee could wish.

The Transactions of the Society have been published since your Committee presented their last Report. They have now reached their fifth number, which contains no less than fifteen papers, and on a great variety of subjects entered upon by the Society.

The Treasurer's accounts, which will be found on the table, shew a balance in favour of the Society of £38 10s. 9d.; but as your Committee have not had a sufficient opportunity of looking into them, they defer the farther consideration of them till next Quarterly Meeting; and in the mean time, adverting to the great amount of arrears standing, your Committee recommend that instructions be given to the Committee to use their best exertions to prevent the accumulation of such in future.

Your Committee recommend that the Meteorological and

other scientific instruments belonging to the Society should be collected together or otherwise distinctly ascertained by the Committee, and delivered over in charge to some office-bearer of the Society (as the Committee may determine), who shall make immediate report to the Committee of their present condition, and from time to time thereafter, a report of the results derivable from them, and the best means of rendering them available to the Society.

In conclusion, your Committee trust that the individual efforts of Members will be exerted to extend the usefulness of the Society, and though there is of course much yet to be done, and the Society cannot but suffer by the absence of some of its energetic Members, your Committee believe that success in the pursuit of the objects of the Society may be confidently anticipated.

Report of the Sub-Committee for the Great Exhibition at London.

The Sub-Committee appointed to carry out the Resolutions of the Society with regard to the collection and transmission to England of objects suitable for display at the Great Exhibition of the Works of Industry of all nations, lately held in London, have the honour to report that on the receipt of definite information for their guidance from the Royal Commissioners, the Sub-Committee took steps to invite the co-operation of all the residents of Ceylon, by means of public advertisements, and by circular letters addressed, under the sanction of the local Government, to several gentlemen in their service residing at out-stations, with a view of furthering the objects of the Society. The authorities most liberally placed at the command of the Sub-Committee a sum of money to meet all necessary expenses, disbursement of which will be seen in the subjoined accounts, and otherwise encouraged and assisted them in their undertaking. The Committee feel, however, that some gentlemen at out-stations from whom they had calculated on receiving considerable assistance, have failed to second their efforts, whilst others appear to have mistaken the objects of the Commissioners, and have regarded the Exhibition, rather as a Museum of curiosities and antiquities, than as a grand attempt to develop the productions of science and of art.

The Sub-Committee have always deeply regretted, that the period available to them was, in consequence of the length of time required for communication with the Commissioners, far too short to admit of their

doing justice to the work in hand, as they were thus prevented from procuring specimens of carving in wood and ivory, and other industrial objects, the special produce of the colony, which they had hoped would have been among their contributions to that magnificent display of industry and skill, which so justly formed the admiration of the world.

The Sub-Committee is obliged to confess, that with some few exceptions, the collection from Ceylon was by no means such as they had anticipated; but to all who are aware of the degree of jealousy with which the Asiatic mind regards whatever is in advance of the present hour, it will not appear strange that the suggestions put forth by the Committee were looked on by many, even of the influential and educated Natives, with apathy and distrust. This fact was the more deplored by the Committee, as it was their especial hope to have exhibited the result of native ingenuity as a prominent feature.

With the view of obtaining articles of superior workmanship and design, the Sub-Committee offered prizes for specimens of cabinet work, jewellery, &c., but the result did not answer their expectations, as the designs shewed no originality, nor were they objects of superior quality or skill.

The Committee have much pleasure in acknowledging several contributions of raw and wrought materials, some of which were of fair average quality, and if they could be obtained at a remunerating price, promised to be of commercial value; they had also the benefit of forwarding models of agricultural buildings and implements as well as articles of furniture, which were intended for private distribution, on the closing of the Exhibition.

Although the Committee are persuaded, that the collection, as a whole, did not fairly represent the capabilities of Ceylon, and must have been completely overshadowed by the brilliant productions of the Continent of India and the refinements of manufacture from various parts of Europe, it is still a source of satisfaction to observe, that the Royal Commissioners have awarded Prize Medals for a very fine collection of Cinnamon in all its stages of growth and manufacture, forwarded by Messrs. Parlett O'Halloran and Co., Colombo; for a collection of the produce of the Coconut tree, transmitted by the same firm; and for an interesting collection of medical and commercial Plants, Gums and Oils, the contribution of Mr. Pieris of the Medical establishment at Kandy, to whom the best thanks of the Society are due for the trouble and expense attending the procuring and preparing thereof.

Immediately before packing the various contributions for shipment to London, the Sub-Committee deemed it right to exhibit them to the Public, and were under obligation to the local Officer of the Board of Ordnance,

for convenient space in the Fort of Colombo, where they were displayed for several days, after which the Sub-Committee felt it necessary to examine them seriatim, and keep back those which were either imperfect, or in the opinion of the Committee were considered not to be within the intentions of the Royal Commissioners, which are accordingly retained in the possession of the Society.

The specimens of Cinnamon and Cocoanut Oil, for which prize medals have been awarded, were received by the Committee at too late a period to admit of their being displayed in Colombo, but were duly forwarded with the other contributions.

The valuable services of J. Capper, Esq., as Secretary of the Society, are too generally appreciated to admit of remark from the Sub-Committee; they have, however, the pleasure of reporting that on his return to his native country, Mr. Capper was appointed by the Royal Commissioners to act as Honorary Agent for Ceylon, in arranging the articles for Exhibition in the Crystal Palace, in which capacity he rendered essential service to the Exhibitors, and deserves an special record of the Society's obligations.

On behalf of the Sub-Committee.

F. W. WILLISFORD, M.D.

Colombo, January 20th, 1852.

Hony. Secy.

The Hon'ble H. C. Selby moved, that the Reports now read be received and adopted, and the motion being seconded by the Hon'ble Mr. Justice Starke, was carried unanimously.

The following Gentlemen were then proposed as Members of the Society and unanimously elected.

Lieut. Col. Wilson, R.A.	{	<i>Proposed by J. O'Halloran, Esq.</i>
	{	<i>Seconded by E. L. Layard, Esq.</i>
Captain W. S. F. Neill, R.A.	{	<i>Proposed by Lieut. Margesson.</i>
	{	<i>Seconded by J. O'Halloran, Esq.</i>
Capt. J. Sim, R.E.	{	<i>Proposed by J. O'Halloran, Esq.</i>
	{	<i>Seconded by E. L. Layard, Esq.</i>
Durand Kershaw, Esq., C.C.S.	{	<i>Proposed by R. Dawson, Esq.</i>
	{	<i>Seconded by R. E. Lewis, Esq.</i>
M. Coomorasamy, Esq.	{	<i>Proposed by Rev. Dr. Mac Vicar.</i>
	{	<i>Seconded by J. De Alwis, Esq.</i>
J. Lamprey, Esq., M.D.	{	<i>Proposed by R. E. Lewis, Esq.</i>
	{	<i>Seconded by the Hon. Mr. Starke.</i>

The Meeting then proceeded to the election of Office bearers for the ensuing year.

The following Members were then proposed and duly elected as Office bearers of the Society for 1852.

Patron.

His Excellency the Governor.

President.

The Hon'ble C. J. MacCarthy, Esq.

Vice-President.

The Hon'ble Mr. Justice Starke.

Treasurer.

R. Dawson, Esq.

Secretary.

Capt. W. S. F. Neill, R. A.

COMMITTEE.

The Hon'ble H. C. Selby, Esq.
Lieut. Colonel Wilson, R. A.
Rev. Dr. MacVicar.
Rev. D. J. Gogerly.
Rev. Dr. Kessen.

J. B. Misso, Esq.
J. De Alwis, Esq.
J. O'Halloran, Esq.
R. E. Lewis, Esq.

Mr. Dawson laid before the Meeting a specimen of a mineral, supposed to be gold, which had been assayed by the Madras Mint, and found to be composed of other than the precious metals. Also several specimens of Rock from Alipie, viz. Graphite Granite, and highly crystalized Dolomite, and a large series of the various woods from the Malabar Coast; these were the contributions of Mr. Hugh Crawford. Mr. L. De Soyza presented the facsimile of an inscription in a cave Temple at Koratotte in the Hewegam Korle, also some coins and signet balls or lumps of clay, on which an inscription in an unknown character is impressed.

These donations were accompanied with the following letter.

To the Honorary Secretary, Ceylon Branch of the Royal Asiatic Society.

SIR,—I have the honour to present to the Society eight pieces of clay on which some ancient characters are impressed. They are found in great abundance in a cave in Sina Corle in the neighbourhood of the ruins of an ancient Buddhist Temple. Two similar lumps of clay were presented to the Society in June 1850, by the Interpreter Mohandiram of Matelle, who supposed them to be earthen coins (?), and a few more by Mr. Power from Badulla.

The character stamped on them appears to be an old type of the Nagari alphabet, although it is difficult to make out anything of the inscriptions, but it is not improbable that something of their purport might be ascertained by poring over them with attention and perseverance.

I also take the liberty to send you six ancient *Singhalese* coins dug near a Buddhist Temple at Cotta. These coins appear to be identical with those presented to the Society by Mr. Casie Chitty, of which he published an account in the first No. of the Society's Journal. He supposed, on hypothetical evidence, that these coins belonged to some of the ancient Tamil sovereigns of Ceylon, who from time to time usurped the Government of this Island; but it would appear that he is mistaken in this position. For I have really discovered that the coins in question had been deciphered so far back as 1837, by the celebrated Mr. Jas. Prinsep, assisted by the late Mr. Tournour of our own island. A most interesting account of this discovery is contained in Vol. VI. of the Bengal Asiatic Society's Journal, pp. 298-99.

Through the help of Mr. Prinsep's plates I have easily identified all the coins of this description in my possession, which belong to the following sovereigns of Ceylon.

1.—*Sri Wijaya Baha*.* (There are seven kings of this name in the list, the first of them reigned at Pollonnaruwa A. D. 1071—1126, and the last at Jayawardanatowa (Cotta) A. D. 1527—1534.)

2.—*Sri Parakrama Baha*. (There were nine kings of this name, the first of them reigned at Pollonnaruwa A. D. 1153—1186, the last at Cotta A. D. 1505—1527.)

3.—*Sri Raja Lilawattie (Queen)*. A. D. 1202—1205.

4.—*Srimat Sahassa Malla*. A. D. 1205—1207.

5.—*Sri Dharmasokadewa*. A. D. 1213—1214.

6.—*Sri Bhunareka Baha*. (There were seven kings of this name, the first reigned at Zapaloo in the Seven Corles, A. D. 1303—1314, and the last at Cotta, A. D. 1534—1542.)

I have not met with any other specimens of these coins; Mr. Prinsep mentions two more, namely those of the king *Kerte Nessanga* A. D. 1192,

* Vide Turnour's Epitome of the History of Ceylon.

whose exploits are related in the Dambool inscription deciphered by Mr. Armour, and published with introductory remarks by Mr. Turnour in the Ceylon Almanac of 1834; and of Queen *Kaiyanawati*, A. D. 1207—1216.

I have also the pleasure to send you a *facsimile* of an inscription on muslin in the ancient characters deciphered by Mr. Prinsep, engraved on a cave temple at Koratotte in the Hewagam Corle. I have had no time to make an attempt at deciphering the inscription, but have at once read the words *Sugata Anagata* in the opening sentence, and I hope to be able to communicate something more of its contents to the Society on a future occasion.

Whilst on the subject of inscriptions, I may mention that I have succeeded in reading the *Mihintalle* inscription sent by Mr. Brodie. It turns out to be the same as the inscription from the same place published by Mr. Turnour in the Ceylon Almanac of 1834. It is not in the ancient character of Mr. Prinsep's Alphabet, but in a very old type of the Singhalese character.

I remain,

Dear Sir,

Your obedient servant,

Colombo, 7th February, 1852.

L. D. ZOYSA.

The Hon'ble Mr. Selby presented some copies of modifications of the Sanscrit by Captain Chapman; also the impression of a seal supposed to belong to the highest order of priesthood.

Letters were also laid on the table announcing His Excellency's willingness to become Patron of the Society; also a correspondence with the Colonial Secretary concerning the Room now occupied by the Society in common with the Loan Board.

The books laid upon the Table consisted of.—

- 21 Nos. of the Journal of the Indian Archipelago.
- 16 Nos. of Journals of Bengal Asiatic Society.
- 1 No. of the Journal of the Royal Asiatic Society of London.
- 4 Nos. of the Journal of the Statistical Society.
- 2 Quarterly Journals of the Geological Society, Calcutta Review.
- 1 No. Bombay Asiatic Society's Journal.
- 2 Nos. Bombay Geographical Society's Journal.

The only paper contributed, was Mr. Picris's continuation of his paper on the *Materia Medica* of Ceylon.

Before dispersing, much discussion ensued as to providing a suitable room for the Society's Meetings, and for their Collections, when it was resolved to empower the Committee to take such steps to remedy the inconvenience as may seem best to them to obtain, if possible, a suitable room or building.

The Meeting adjourned.

W. S. F. NEILL,
Hony. Secy.

GENERAL MEETING, HELD 15TH MAY 1852.

Present :—The Hon'ble H. C. SELBY, Esq., in the Chair.

The Rt. Rev. J. Chapman, D.D., Lord Bishop of Colombo, the Hon'ble Sir Anthony Oliphant, C.B., Lieut.-Colonel Wilson, R.A., Major Lushington, C.B., the Rev. D. J. Gogerly, John Dalziel, Esq., E. L. Layard, Esq., J. De Alwis, Esq., J. O'Halloran, Esq., J. Lamprey, Esq., M. B., L. De Zoysa, Esq., J. L. Flanderka, Esq., Dr. J. B. Misso, R. E. Lewis, Esq., F. Straube, Esq., R. Dawson, Esq., M. Coomarasamy, Esq., Captain Neill, Secretary.

The Secretary informed the Meeting that he had had a communication from the Hon'ble C. J. MacCarthy, who was unable to attend on account of business, which disabled him also from appearing on previous occasions ; this he much regretted, as he took a sincere interest in the welfare of the Society.

The Minutes of the last Meeting were then read and confirmed, and the Secretary forthwith proceeded to read the following Report of the Committee.

Report.

YOUR Committee, in submitting to the Society their Report upon the quarter which has elapsed since the assumption of their duties, have to regret that even in that short interval,

some of the most important objects to which their attention has been assiduously directed, have not yet been brought to a successful termination.

This has partly been the result of circumstances, such as the absence of influential Members entailing for a time the suspension of the Society's proceedings; and it is partly due to the difficulty your Committee have experienced in the reconstruction of a system for a long time held in abeyance, and in the recommencement of correspondence for a long time interrupted. Your Committee are happy, however, to be able to speak in favourable terms of the present position and prospects of the Society.

Your Committee prefer to call the attention of the Society first of all to the statement of the Treasurer, marked A., and attached to this Report. From this it appears that there is a clear balance in favour of the Society of £13 18s. 2d.; nor is this to be considered the whole revenue for the year, for of the 62 Members which compose the Society, not more than 11 have as yet been called upon, through an unavoidable delay, to pay their annual subscription for 1852. It may therefore reasonably be presumed, that the balance in favour of the Society will not be less than £100.

But, while your Committee cannot view such prosperous circumstances but with the most sanguine satisfaction, they still believe that the best interests, if not the very existence of the Society, depend upon the prompt but judicious application of its finances to the furtherance of those principles and undertakings which suggested its institution.

Your Committee are of opinion, that the expenditure of the Society should be divided into three classes. In the first, your Committee would include that necessary for the publication of the Society's Journal. To the out-station Members, who form a great proportion of our numbers, and by whose support and ability the Society has hitherto so largely benefited, the publication and distribution of our Journals is the only com-

pensation we can render for their subscriptions as well as for their unwearied and disinterested co-operation. By our Journals also, we maintain, better than by other means, our connection with the Parent and all other kindred Societies. Nor is the country whose peculiarities it is our duty to describe and investigate, at all deficient in interest; indeed there is, on the contrary, scarcely a region of the earth where such a rich harvest is ripe and ready for the most various enquiry, or from which such a Society as our own could draw so large a crop of useful facts. Besides having been the great headquarters of Buddhism, and long the seat of an active and splendid monarchy, Ceylon is the theatre where nature has displayed as many and as curious attractions as any portion of the Globe. But though compact and full of interest, the Island has been but indifferently examined; the world knows almost as little of Ceylon as it does of Java, and certainly, as far as History is concerned, far less than it does of China. We have been so partial and fragmentary in our Geological investigations, that we possess no summary of those probable contingencies which gave to it an existence. Botany has been almost as much overlooked. Long before this time, had his valuable life been spared, we should have derived from the great talents and the large experience of Dr. Gardner, a knowledge of that wonderful vegetable wealth wherewith we are so profusely surrounded; but even if he had been spared to us, it is more than probable that he would have left the wide field of the *algæ* almost untouched. As it is, your Committee cannot congratulate the Society on the amount of its botanical facts; the admission is made with regret, the more so as it applies to Conchology, Meteorology, Natural History, Archaeology, and in a great degree to other sciences and subdivisions of sciences. Your Committee, among other deficiencies which they would wish to see supplied, remark the general absence of Historical contributions. This is the more to be regretted, as it is generally felt that the history of Ceylon abounds in all

those incidents which give a charm and an interest to the records of a nation's career, and also because those gentlemen who have treated the subject hitherto, have substituted compilation and narrative for history, and have failed to advance those philosophical views, without which, it will not satisfy the requirements of the present age. Your Committee would also be happy to see more papers on Statistics; on the adaptation of the Island for Railroads; on the best mode of arranging Electric Telegraphs; on the advantages of introducing malleable iron in the construction of Bridges, as has recently been done in England with so great economy and success; these, and many other subjects of great practical importance might, it is believed by your Committee, be most appropriately received into such a Journal as the Society wish to establish. Again, in reference to the treatment of purely Oriental subjects, your Committee, seeing the attention of the Parent Society so much and so successfully devoted to the subject of Buddhism (vide Major Cunningham and Captain Chapman's papers in the last number of the Journal), cannot overlook how much that subject might be elucidated by systematic and active enquiries on the spot; nor can your Committee deem it probable that such enquiries, when superintended by the great erudition of the Rev. Mr. Gogerly, the Rev. Mr. Palm, Mr. De Zoysa, and other Oriental scholars, would fail of attaining the most complete success. This view of the case has been confirmed by the receipt by last mail of a letter from Captain Chapman, marked B., and attached to this Report, in which that indefatigable Orientalist invites the attention of the Society to specific points of importance, and requests answers to various questions. Your Committee are of opinion, that a correspondence such as that commenced by Captain Chapman, could only be continued through the instrumentality of small Committees of two, three, or four members each, and specially charged with the duties peculiar to the department of knowledge or enquiry over which they respectively preside,

and on which they should be required to make reports at stated intervals to the General Committee. By this means a great proportion of the sciences would be represented by the various Committees, and a character of systematic and continuous research impressed upon the proceedings of the Society. A resolution to this effect will be made, and if acceded to, the various Sub-Committees forthwith formed. The above recapitulation, and it could be extended, is not one calculated to give your Committee much pleasure, but still less does it provoke any feeling like despondency, for your Committee are not more assured that there are in the Island the materials for the most various and important investigations, than that there are men able and willing to bring them to light. Your Committee will therefore submit to the Society, that a certain sum be given to the reading Committee, the Report of which, marked C., is laid upon your table, to enable them to publish as soon as they shall deem fit. In the second class of expenses, your Committee would include those for the purchase of books and the furnishing of the Museum. The only outlay incurred by the Society at present for the first, is for the *Caleutta Review*, the *Geological Journal*, and the *Statistical Journal*, so that it would be easy to afford a little sum of money for the purchase of valuable standard works this year. Your Committee would not presume to specify any books, but it is their opinion that none but standard works should be purchased at present, and that a good and cheap Bookseller be employed. On this subject your Committee have to remark, with extreme regret, that many valuable volumes, some of them belonging to series, are not now to be found in the Library. Your Committee subjoin a list, marked D., of those that are deficient, and they confidently hope that any Gentleman who happens to have any book belonging to the Society in his possession, will apprise the Secretary without delay, as that officer is now completing his Library list; and it would be most desirable to recover as many books as pos-

sible. Your Committee may state, that they now employ the services of a Librarian at a slight remuneration, he is always in the office, and has the keys in his possession, so that any Member can at any time receive any work which is in the Library, the Librarian taking note of his name and the date of issue. In reference to the Museum, your Committee have not presumed to decide how it should be supported, whether from the general funds of the Society, or from a fund to be continued in aid of itself and styled the Museum Fund. The question will be submitted to your determination, as will also some supplementary ones in reference to its maintenance and improvement; at present your Committee are happy to be able to state that its condition is by no means a bad one. The careful investigations of Mr. Layard assure us, that there are of birds the specimens of 260 species, of which 175 are fit for mounting; and it is possible that within a very short time the efforts of Dr. Kelaart, Mr. Layard, and others, could render great and complete accessions to this and most other provinces of Natural History. Of shells, there are about 300 species, and Mr. Layard has promised the addition of no less than 200 more. The department of Mineralogy is also satisfactorily represented; and indeed your Committee are assured that the Museum at present is in so satisfactory a condition, that nothing but a just amount of the Society's patronage is sufficient to elevate it to utility and excellence. On this subject, your Committee have much pleasure in inviting the attention of the Society to a letter from E. L. Layard, Esq., to the Secretary, displaying his usual sound sense and zeal for the Society's welfare: it is marked E., and is attached to this Report.

The last and third class of expenses is that connected with the Instruments of the Institution. It would appear, from the accounts of the Treasurer's department, as also from the proceedings of the Society, that many instruments have been bought, of which no record now remains. The instruments

at present in use, consist of a Barometer, three Hygrometers, a Standard Thermometer, a Rain Guage, and a Scale Ruler; but others have been bought previous to these, and nothing is now known of them. It is impossible to conduct a wide and important Meteorological Survey with such assistance only as these instruments could render; and your Committee feel assured that the scientific department of the Society's operations is entitled to its share of support. Your Committee are of opinion, that for a very slight outlay a series of instruments could be purchased, which would illustrate and assist scientific investigation of a very extended character. They judge, however, that as far as Meteorology is concerned, not much expense should be incurred in the purchase of Thermometers. Some of those instruments can be bought in Colombo, of a good construction and at a low price, which can be rigidly compared with the excellent standard instrument of the Society, their error, if any, detected, and themselves adapted at once to the purposes of Hygrometers. It is not saying too much, that the outlay of £3 would enable the Society to transport at once to Trincomalic, Newera Ellia, and Galle, instruments which would yield the most useful and important results. Of course, this is not meant to apply to the self-registering thermometers, some of which it would be advisable at once to procure from the best maker in London. Your Committee deem, however, that the greatest benefits would accrue from the possession of such instruments as the Electrometer, Actinometer, the Polariscopes, and those others which indicate the phenomena of light, radiation, and atmospheric electricity. A Photographic apparatus, by which temples, statues, and inscriptions and tracery, however elaborate and minute, could be faithfully delineated, is however the instrument of which your Committee would wish to see the Society possessed as soon as possible. The records which it would give of the architecture and antiquities of Ceylon, would assist research, and would probably discover many coincidences

now unobserved or unknown. An Electro-plating machine, which could be purchased for very little here, would enable the Committee to multiply casts of coins, &c., specimens of which might be submitted to Numismatic and other Societies. Your Committee cannot close their remarks in connection with the expenditure of the Society, without expressing the hope, that as Ceylon so plentifully abounds in materials from which an institution like the present could select so much that is important and curious, that so now will all its Members unite vigorously in the effort to advance its objects and its importance; to bring to light the wonders of this unexplored and interesting Island; and to shew ourselves worthy of our connection with the Parent Society, in our indefatigable investigation of what was so grand in the past, and is so attractive in the present. To realise completely some of the advantages which may surely be anticipated, it is the opinion of some Members of your Committee, that as much as possible should be encouraged, the formation of Provincial Committees, affiliated with and subordinate to the Committee at Colombo, with which they would be brought into systematic and continued correspondence. Upon the expediency of this measure, the Committee refrain from giving any opinion, deeming that it had far better be decided by the vote of the Society itself. In connection with their own immediate transactions, the Committee have to refer to the Report of two Sub-Committees, marked F. and G., and attached to the proceeding which they directed, so far back as 16th February 1852, to confer with the members of the Athenæum, to see if the two Societies might not unite, to a certain extent, in the furtherance of views and objects common to both; and also whether a more commodious room might not be procured for the Society. On the first of these points, your Committee are aware of a great diversity of opinion among their own Members; and therefore they gladly avail themselves of the occasion of a General Meeting to bring the question before it. On the

second of these questions, your Committee are of opinion, that the expense constitutes a very great objection to any change of residence for the present. Your Committee cannot close their Report without referring to the loss which they have sustained from the absence of Dr. MacVicar. They feel assured that he would have been a most willing and able co-adjutor in our present efforts to renew the profitable and important enterprises appropriate to our Society, and that his endeavours would have elicited the same appreciation which the Parent Society once so markedly expressed. Other withdrawals from the ranks of the Society, and not so temporary as it is hoped will be that of Dr. MacVicar, your Committee have great regret in remarking, even though the loss is more than made up by the recent additions to our numbers.

Your Committee append a list of books they have received since last meeting, marked H. and attached to the Report, which, as well as the correspondence of the Society, the Report of the Sub-Committees, the Meteorological observations of Captain Higgs, Trincomalie, and Captain Neill, R. A., Colombo, they now submit for your inspection; and they close their Report with the confident hope, that before the next General Meeting their efforts to increase the utility and activity of the Society will be attended with success.

W. F. SMITH NEILL,
Secretary.

List of Papers, &c., put upon the Table.

- A. The Treasurer's Report.
- B. Two letters from Captain Chapman, with a seal, and two copies of Prinsep's Alphabet.
- C. Report of the Committee on papers.
- D. List of missing books.
- E. Letter from Mr. E. L. Layard to the Secretary.
- F. Report of Committee appointed to confer with the Committee of the Athenæum.
- G. Report of the Committee appointed to seek for better accommodation, &c.
- H. List of books received since the last Meeting.

- K. Letter from the Numismatic Society, 10th Dec. 1850.
- L. Letter from the Royal Asiatic Society, 16th Nov. 1850.
- M. Letter from the Royal Asiatic Society, 15th Nov. 1851.
- N. Specimens of Dr. Kelaart's Prodrromus.
- O. Catalogue of Books in Library.

It is not deemed necessary that all the foregoing papers be printed, but only

- A. The Treasurer's Report.
- B. Captain Chapman's correspondence.
- C. Report on Committee of papers.
- H. List of books received since last Meeting.

W. F. SMITH NEILL,
Secretary.

Resolutions.

1.—Major Lushington, C. B., then moved, that the Report which had just been read be adopted; and the motion being seconded by M. Coomarasamy, Esq., was carried unanimously.

2.—It was moved by J. L. Flanderka, Esq., that a sum not exceeding £20 be given to the Reading Committee, with which to effect the publication of the Society's Journal as soon as they shall deem fit; and this motion being seconded by E. L. Layard, Esq., was carried unanimously.

3.—Moved by Dr. J. B. Misso, that a sum not exceeding £12 be set apart for the purchase of books, which the Committee shall afterwards select; and this motion being seconded by Captain Neill, was carried unanimously.

4.—Moved by the Hon'ble H. C. Selby, that small Committees be formed, to which different enquiries be entrusted; that there be first an *Oriental Committee*, composed of the Rev. D. J. Gogerly, President; Members, the Rev. J. D. Palm, J. Alwis, Esq., L. De Zoysa, Esq., and M. Coomarasamy, Esq., who will charge themselves with the elucidation and superintendence of all subjects connected with the Religion, History and Antiquities of the Island. Secondly, that there be a *Committee on Statistics*, composed of J. Dalziel, Esq., President; Members, Dr. Kessen, Dr. Misso, R. Dawson, Esq., R. E. Lewis, Esq., to superintend that department of enquiry; that there belastly, a *Committee on Science*, composed of Lieut.-Colonel Wilson, R. A., President; and Members,

Major Lushington, C.B., E. L. Layard, Esq., and Dr. Lamprey, who will not only conduct the business of the Museum, but charge themselves with all the Scientific duties which may devolve upon the Society; and this motion being seconded by J. L. Flanderka, Esq., was carried unanimously.

5.—Moved by Lt.-Col. Wilson, R. A., that a sum not exceeding £12 be set apart for the purchase of instruments which the Committee on Science shall afterwards select, and this motion being seconded by J. De Alwis, Esq., was carried unanimously.

6.—Proposed by E. L. Layard, Esq., that the Museum funds, at present amounting to £6 12s., be handed over to the Committee on Science for the service of the Museum, and that the Treasurer be entitled to receive for the Museum donations only from new Members, and donations or subscriptions from Members of the Society, and this motion being seconded by Dr. Misso, was carried unanimously.

7.—Moved by R. Dawson, Esq., that the Secretary be instructed to recommend, in his correspondence, the institution of Provincial Committees at Jaffna, Trincomalie, and elsewhere, for the purpose of more efficiently conducting extensive and important enquiries, and for advancing the general interests of the Society; and this motion being seconded by Mr. Flanderka, was carried unanimously.

8.—Moved by J. Dalziel, Esq., that this Society consent to unite with the Athenæum in making a joint application to Government, with a view of obtaining apartments for their common use; and this motion, being seconded by L. De Zoysa, Esq., was carried unanimously.

9.—Moved by the Rev. D. J. Gogerly, that three gentlemen, viz., The Hon'ble H. C. Selby, Major Lushington, C.B., and the Secretary, be requested to wait upon His Excellency, when they shall have opportunity, to confer with His Excellency on the behalf of this Society; and this motion being seconded by Lt.-Col. Wilson, R. A., was carried unanimously.

Mr. L. De Zoysa then submitted to the Society for their inspection a Burmese letter.

The following gentlemen were then proposed for election as Members of the Society and unanimously elected.

G. S. Duff, Esq.	.	.	{ Proposed by R. Dawson, Esq.
			{ Seconded by J. de Alwis, Esq.
Lt. Schaw, R. E.	.	.	{ Proposed by Capt. Neill, R. A.
			{ Seconded by E. L. Layard, Esq.
Dr. Hoffmann .	.	.	{ Proposed by Lieut.-Col. Wilson, R. A.
			{ Seconded by M. Coomarasamy, Esq.
S. Worms, Esq.	.	.	{ Proposed by Capt. Neill.
			{ Seconded by J. Dalziel, Esq.
T. Berwick, Esq.	.	.	{ Proposed by Lieut.-Col. Wilson, R. A.
			{ Seconded by Mr. Flanderha.

A.

TREASURER'S ACCOUNT.

				Total Ar- rears col- lected.	
Subscriptions, Arrears col- lected for 1849	£.....	.....		
do. do. 1850	4 4 0				
do. do. 1851	23 2 0				
		27 6 0	27 6 0		
do. For current year 1852	.....	11 11 0	.....	38 17 0	
Entrance fees collected .....	.....	.....	.....	2 12 6	
Museum Fund, Arrears cltd. 1850	3 0 0				
do. do. 1851	3 0 0	6 0 0	6 0 0		
do. For Current year 1852	.....	0 12 0	33 6 0	6 12 0	
Total amount collected	.....	.....	.....	48 1 6	
Cash received from the Hon'ble the Colonial Secretary	.....	.....	.....	6 7 8	
Balance received from Ex Treasurer	.....	.....	.....	32 3 1	
				£86 12 3	
Payments: old accounts, Mr. Lewis	30 5 9				
do. Thacker & Spink	1 15 6	.....	32 1 3		
Small items, current expenses	.....	.....	0 12 10	32 14 1	
Balance—deposited with Oriental Bank Corporation.....	.....	.....	53 0 6		
In hands of Treasurer ...	.....	.....	0 17 8	53 18 2	
				£86 12 3	

Colombo, 14th May, 1852.

E. & C. E.

ROBERT DAWSON,
Treasurer.

B.

To the Secretary, Ceylon Branch, Royal Asiatic Society, Colombo.

SIR,—I venture to beg the acceptance, by the Society, of a second copy of a joint communication which the Royal Asiatic Society has done me the honour to insert in its Journal for the present season, because a copy of "Prinsep's Modifications of the Sanscrit Alphabet" is inserted in it to facilitate comparison.

I also beg the acceptance by the Society of two additional copies of that alphabet.

With my best wishes for the prosperity of the Branch in Ceylon,

I have &c.,

S. J. CHAPMAN.

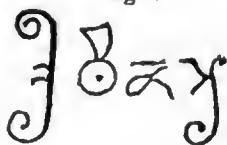
Athenæum Club, Pall Mall, London, 18th Feb., 1852.

London:—Athenæum Club, 20th Feb., 1852.

SIR,—May I also take the liberty of begging your kind assistance in the following points:—

First,—Sir Woodbine Parish has in his possession an onyx engraved nearly as follows:—

fig. 1



which, according to Prinsep, means


The r o

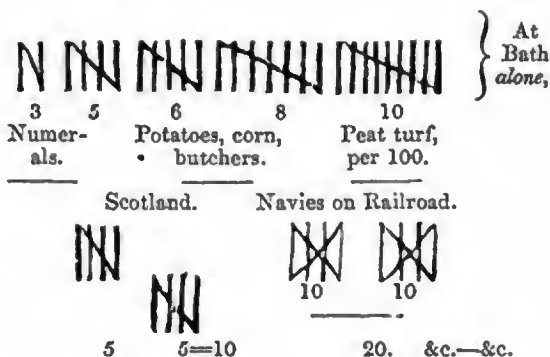
7192

The first character is supposed to be a Monograph, in which (S) are supposed to be Sri. The character comes nearest to Sri of the Third and Fourth Centuries.*

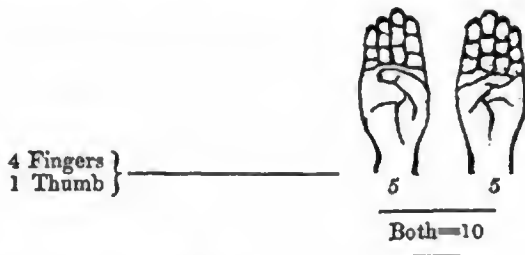
The other letters form Thero, "the highest of the high priests among Buddhists." But although the substitute for Sri is placed before titles amongst other Buddhists, and even before Dharma, as Sri Dharma, Professor Wilson is not willing to take this my interpretation "Sri Thero." I therefore shall be much obliged to you, if you can obtain any information on the subject. The Singhalese kings made use of Monographs on their coins; the priests were allowed to have seals, and according to the Bible the names of the Ten Tribes were engraved on an onyx. I am

therefore inclined to believe it to have been the seal of office borne by Theros.

Secondly,—To ascertain whether any score or tally is kept by the Kandyans or Singhalese, or by the troops,—Malays, Africans, or Arabs, &c., or in the Shipping which frequent the Ports of Colombo, Galle and Trincomalie, of this kind  or "4 perpendicular right lines cut by an oblique diagonal, the 4 right lines being each one, and the diagonal also one." I have traced, with the assistance of numerous correspondents, modifications of this principle, viz :



I have found it among the most illiterate of Irish, from thence across England to Norway, and thence to Scandinavia, to M. N.* To the East I have found it to exist in France, Central Germany, Italy, and Genoa. And I am particularly anxious that this enquiry shall be carried on in the East, particularly in the neighbourhood of the hills in Kandy, of the Nilgherries, and the country about the Himalayahs. I make this enquiry, because I hope to shew that the Cadmean Alphabet was derived from these numerals—the scale of Nature herself—the hands



* The nearest approach to MS., PRINTER.

It is probable that some of the visitors to Newera Ellia, may have it in their power to follow up my enquiry, not only there, but on the Himalayah.

By making this as public as you can, you will much oblige,

Yours faithfully,

S. J. CHAPMAN.

Athenæum Club, London, 17th March, 1852.

SIR,—Last month I endeavoured to avail myself of the kindness of the Colonial Department, to send, addressed to you, a copy of an article in the last number of the Royal Asiatic Society's Journal, entitled "Some additional remarks upon the city of Anuradhapoora, and the Hill Temple of Mehentela in the Island of Ceylon," which the Society did me the honour to insert. As I have reason to believe that the parcel will not have been sent, but will be forwarded by this Mail, I venture to address you further.

It will be seen that the paper is wholly historical, and that it rests as authority upon Turnour's Mahawanso, even for the date assigned to Chandra Gupta, viz., 381 years before the Christian era. This date is disputed, as being at variance with that of the Greek Sandracottus; but as this fact was not only known but fully discussed in the Introduction and Appendix to the Mahawanso by Mr. Turnour, I did not feel justified in departing from his authority. Therefore, I contented myself with saying, that this important but disputed date is fixed; but when I take the elaborate examination of this difficult point by Professor Wilson, into consideration, I feel that it would have been much more satisfactory, if the words, "but disputed" were inserted. You will, therefore, very much oblige me if you will have the kindness to make this correction *at my request*.

The communication from Major Cunningham of the contents of the Topes around "Surihi," page 108, naturally turns our attention to every thing connected with Buddhism. I shall, therefore, mention some points which appear to me of interest. In page 221 of Davy, is an account of the contents of a Dagoba at Cotta, which was opened by Mr. Layard in

1819 or 1820. In one corner of the floor is  which is not de-

scribed, but which I have mentioned as like a *king of Chessmen*. On

referring to page 114 of the Journal we find



another figure.

May not this have been the object? and may not the Monogram there given lead to the explanation of (Fig: 1) the engraved seal; of which I have enclosed an impression. The reading which I have ventured to give is this, viz.: Sri Thero or Holy Hierarch, (as Maha Kassapa, &c.), is not considered admissible, first, because the term Sri is not thus used, and in the second place, because vowels after consonants are expressed by a line, initial vowels alone have a character assigned.

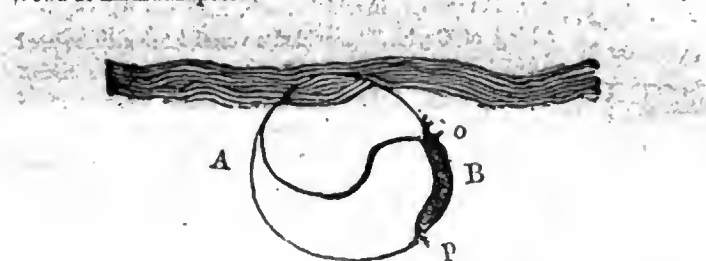
Σ
Σ
Σ
Si wa
Σ I J
Ma
I. u
J. ka

Sewa
Muka
A.D. 44.

It would be highly desirable, if both these objections could be either confirmed or disproved, not on account of the seal only, but because there is a Rock Inscription near Pomparipo, in which can be made out "the name of a king of Ceylon," provided a vowel letter may be used when intermixed with consonants, and not an initial. Possibly some of the priests can decide both of these points. In the same Dagobah were found numerous minute Dagobahs about $1\frac{1}{4}$ inch by $1\frac{1}{4}$. They had an inscription either on the inside of the flat base or on the opposite surface; they were comparatively abundant when I was in Ceylon (1828, 1829), and possibly are to be got at present. It will be interesting to ascertain whether these Dagobahs are substitutes for the square stone boxes, on the lids of which were inscribed the

names of those persons whose relics were buried in the large Dagobahs, page 100 of Journal. Very recently three Prayers on vellum about 14, 15, and 12 inches in length, and rolled tightly so as to form a cylinder $1\frac{1}{4}$ inches in length and $\frac{3}{4}$ inch in diameter, were found within a group (I must call it), consisting of a man or some animal surrounded by grotesque heads and human figures, placed on a pedestal about the size of a common plate. The base was covered with some kind of paper; and when this was cut, the three rolls made their appearance. They were taken to the Nepaul Prince, who said and wrote that they were Budticka or prayers of Budha, either from Hindostan, Thibet or China. May not this be one of the many representations of the acts of Gautama which were buried in Ruanwella, "the sight of which gave King Bhatgoso much pleasure," page 175, Journal; and may not this serve as a clue to other groupings equally grotesque? Only a small part of the group remains, which I have seen. There is one head painted blue and sur-

mounted by a conical mound, on which are three rows of projecting prominences; these three lines appear to refer to Siva. The forehead is strongly gilt. The prayers have not been deciphered, but I have taken steps to procure them, and shall submit them to Professor Wilson. On turning to the plate, p. 80, Journal, the Sumbunath has seven stories or circles, in what I shall call its steeple. At page 72, these are described as meaning "the seven heavens." On referring to my drawing of Lanka Rama, and of Mehentelle, as well as of my friend, Captain Weller, (See Vol. III. Trans; Plates), the same number of circles will be found, although the Lithographer, in the case of Lanka, has made only four. It now only remains for me to beg, that attention may be paid to the importance of the equilateral triangle in Budhistical buildings. According to my rough memoranda, every religious building is, as regards the *framework*, made up of these triangles, as well as the *tac-kieh*,* in the construction of Tanks. My attention to it was first attracted by Tissa Wewa at Anuradhapoora.



Let A. B. represent the lake; o, p, will be the embankment. This is carried far above the highest ground so that when sufficient water is enclosed, it may fall into the lower levels A—o. A—p. The crest of the embankment is thus guarded against accident; and the supply of water beyond the embankment being issued by means of syphons passing from the bottom of the water below, or beneath the embankment, it is guarded from this danger. Judging that "everything Budhistical," is done by rule, I cannot but think that the peculiar construction of the *tac-kieh* is devoted to some peculiar purpose.

In the hope that the particulars detailed in this letter, may induce others to take up the investigation, whilst in the head quarters of Budhism, I remain, yours faithfully,

S. J. CHAPMAN.

* As near as can be made out from M.S.

C.

Report of the Committee on Papers, Colombo, 10th May, 1852.

*Present:—*Dr. Lamprey, 15th Regt.; Captain Neill, R.A.

THE Committee upon papers having met, pursuant to the Resolution No. 1 of the Committee Meeting, bearing date 19th April, 1852, proceed to the examination of the various papers contributed by several gentlemen, and long in the possession of the Society. The Committee commence their observations by remarking the absence of the paper from Mr. Herft, in which he gives a most able summary of the statistics of an important district. It was compiled some time ago, and displayed great ability, care, and labour. The Committee would recommend, that Mr. Herft be consulted as to whether, in the interval which has elapsed since the transmission of his paper to the Society, he may have any old facts to amend, or new facts to record, and whether he will supply the Society again with a copy of his excellent paper.

The Committee directed their attention to the several manuscripts in succession. The first, entitled "Remarks on Singhalese Medicine," is a paper in which considerable research is evinced, and upon which some labour has been expended. The Committee think, however, that it could be advantageously condensed; and besides, they deem that the subject of which it treats is one which ought to be submitted to professional judgment, before it could be inserted in the Journal. The next paper is an outline of the Tamil system of Natural History, by Simon Casie Chitty, Esq., and is a paper of considerable value. The next is the Statistical Account of the Districts of Chilaw and Putlam, North Western Province, by Mr. Brodie. This is an excellent paper, though the Committee would advise, that before it were published, Mr. Brodie should be consulted as to any amendments or additions he might be now inclined to make. The last MS. which the Committee have examined, is from the Rev. Mr. Gogerly, entitled "The Laws of the Buddhist Priesthood." This is, like every other of the productions of that gentleman, full of interest and instruction.

The above enumerated manuscripts are those only which the Society has at present in its possession; but the Committee would observe, that circumstances only have delayed the appearance of others of great interest. Dr. Lamprey is at present employed on a very interesting subject; Captain Neill is preparing a large paper; and the Committee are informed by the Secretary of the Society, that he has received from several correspondents, the declaration, that they are ready to contribute

to the Journal of the Society, whenever they are assured that the Society is earnest in its intentions of publishing.

The Committee, in conclusion, are of opinion, that there already exist manuscripts, which united with those which may confidently be expected, would compose a very interesting Journal; and it is their recommendation, that the Society do recommence its publications.

W. F. SMITH NEILL,

Secretary.

H.

List of Books received since last Meeting.

1.—Some additional remarks upon the ancient city of Anoorajapoor, by Captain Chapman.—*Donation from the author.*

2.—The Numismatic Chronicle, Nos. 47, 48, 49, 50, 51.—*Donation from the Numismatic Society.*

3.—Proceedings of the Numismatic Society, Session 1849, 1850.—*Donation from the Numismatic Society.*

4.—The Quarterly Journal of the Geological Society, Part I., Vol. 8, No. 29.

5.—Journal of the Royal Asiatic Society, Vol. 13, Part I, Vol. 14, Part I.

6.—Journal of the Statistical Society of London, Vol. 14, Part IV.

7.—Rudimenta Mythologiae Semiticæ Supplementa Lexici Aramaici, by Paulus Boetticher.

8.—Journal of the Indian Archipelago, Vol. 6, No. 1.

9.—Calcutta Review, No. 32.

10.—Transactions of the Bombay Geographical Society, April to September, 1848.

11.—Journal of the Asiatic Society of Bengal, No. 7.

W. F. SMITH NEILL,

Secretary.

SPECIAL MEETING, HELD 24TH JULY, 1852.

Present :—Rev. D. J. Gogerly in the Chair.

Rev. J. Kats, Messrs. M. Coomarasamy, Dr. Misso, L. De

Soyza, F. Straube, Dr. Lamprey, Lieut. Schaw, E. L. Layard (*pro Secretary*).

Minutes of last Meeting not read, because not given over to Mr. Layard by the Secretary, who had gone to Kandy.

Read letter from Capt. Neill, tendering his resignation as Secretary to the Society, he having been removed to Kandy. Resolved, that Capt. Neill be requested to continue his functions as Secretary to the Committees at out-stations, and that Mr. E. L. Layard be requested to accept the office of Secretary to co-operate with Capt. Neill.

Mr. Layard accepted the office.

Read a letter from J. N. Mooyart, Esq., relative to the resuscitation of the Local Committee in Jaffna. The subject therein alluded to was, after much discussion, laid over till the next General Meeting, which was fixed for the 21st of August.

Read a letter from A. O. Brodie, Esq., Anoorajapoor, forwarding a diagram of the Singhalese numerals. Mr. L. De Soyza was requested to examine them and afford the Society some information concerning them.

E. L. LAYARD,
Secretary.

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THIRD QUARTERLY MEETING, HELD 21ST AUGUST, 1852.

*Present*:—The Hon'ble Mr. Justice STARKE in the Chair.

The Rev. D. J. Gogerly, Rev. J. D. Palm, Rev. C. Alwis, Rev. J. Kats, Messrs. L. De Soyza, M. Coomarasamy, and the Secretary.

Read a letter from the Treasurer expressing his regret that business caused him to be absent, and informing the Society of the state of its funds. The Minutes of the last Meeting having been read and signed, the Chairman stated that with



reference to the 7th Resolution passed on the 15th May last, he had, when lately in Jaffna, conversed with Mr. Mooyaart the Chairman of the local Committee there; on the establishment of Local Auxiliary Societies throughout the Island, to co-operate with the Society in Colombo. After much conversation it was agreed to refer the matter to the Committee, with instructions to bring the subject before a Special Meeting to be called for the purpose.

The Secretary brought to the notice of the Meeting the necessity of employing a peon to distribute its notices and attend to the cleaning of the room. On the motion of the Chairman it was left to the Secretary to engage a person, and to report the matter to the Committee for its approval.

Read a letter from Captain Neill, dated August 9th, 1852.

It was thereupon resolved, that the Vice-President, the Rev. D. J. Gogerly, and the Secretary, do wait upon His Excellency the Governor, to request the assistance of the Government in printing the Society's Journal.

Read a letter from the Rev. D. J. Gogerly to the Secretary, stating that some books belonging to the Society had been brought to his house for sale, and that he had forwarded them to be detained until enquiries could be made into the circumstances.

The Secretary stated that he had traced the books into the possession of a late member of the Society, who having quitted the Island unexpectedly, had left a number of books for sale; and these had been included among them by mistake by the party managing the transaction. He (the Secretary) regretted to observe that two vols. of the same series were still wanting, and he would move that Colombo subscribers should return books borrowed by them from the Society's Library, at every quarterly meeting. Out-station subscribers half yearly. The Chairman moved, as an amendment, that in the first instance books should be returned every three weeks, in the second every six weeks; the Rev. D. J. Gogerly seconded the amendment.

The Rev. J. Kats begged to move, as an amendment, that the first period should amount to one month, the second to one month and fifteen days. Mr. Coomarasamy seconded the motion, which being put to the Meeting was lost. Mr. Layard withdrawing his motion in favour of the Chairman, the following amended motion was put, and carried by a majority of the Members voting.—“That all books borrowed by Members resident in Colombo should be returned to the Library every three weeks; that all books borrowed by Members residing at out-stations should be returned every six weeks; that periodicals should not be retained, either in Colombo or at out-stations, for a longer period than 14 days; and that all books or pamphlets should be returned to the Library, at least one week before the Anniversary Meeting, to be inspected and reported on by the Librarian.”

The Secretary brought to the notice of the Meeting, the expediency of keeping Catalogues of the Donations presented to the Museum, and books for the registration of the names of Subscribers borrowing books. He was authorized to procure the necessary blank books for the purpose.

The Secretary then begged to propose the following gentlemen for admission as Members of the Society, Messrs. H. Mooyaart, F. Flanderka, F. Gisborne, and F. Campbell, all of Jaffna. He proposed them in virtue of his office as proxy for the Chairman of the Local Committee in Jaffna; and being personally acquainted with them, he begged to second them in his own name.

The Chairman and Vice-President objected to this course of procedure; the Rules of the Society did not provide for the proposal of Members by proxy.

The Secretary stated that nothing was laid down in the Rules on the subject; they simply required candidates to be proposed by one Member and seconded by another.

Mr. Gogerly objected to the procedure, agreeing with the Chairman. The Secretary contended that he had precedent for the course he had adopted, but bowed to the decision of the

Chairman; and to avoid disappointment to the gentlemen before named, he would take upon himself the gratification of proposing them, trusting to their being seconded by some gentlemen present. He begged, however, to give notice of his intention to submit the matter to the consideration of the next General Meeting, in the shape of a special motion, as he considered the restriction calculated to act prejudicially on the interests of the Society; and to take from the out-station Members one of the few privileges they enjoyed. Another candidate to-day stood in the same position.

The following gentlemen were then elected Members of the Society.

|                   |   |                                        |
|-------------------|---|----------------------------------------|
| H. Mooyaart, Esq. | { | <i>Proposed by Mr. E. L. Layard.</i>   |
|                   | { | <i>Seconded by Rev. D. J. Gogerly.</i> |

|                |   |                                      |
|----------------|---|--------------------------------------|
| H. Byrne, Esq. | { | <i>Proposed by Mr. E. L. Layard.</i> |
|                | { | <i>Seconded by Rev. J. D. Palm.</i>  |

|                    |   |                                      |
|--------------------|---|--------------------------------------|
| F. Flanderka, Esq. | { | <i>Proposed by Mr. E. L. Layard.</i> |
|                    | { | <i>Seconded by Mr. Coomarasamy.</i>  |

|                      |   |                                      |
|----------------------|---|--------------------------------------|
| F. W. Gisborne, Esq. | { | <i>Proposed by Mr. E. L. Layard.</i> |
|                      | { | <i>Seconded by Rev. J. Kats.</i>     |

|                      |   |                                      |
|----------------------|---|--------------------------------------|
| F. H. Campbell, Esq. | { | <i>Proposed by Mr. E. L. Layard.</i> |
|                      | { | <i>Seconded by Mr. Coomarasamy.</i>  |

|                         |   |                                        |
|-------------------------|---|----------------------------------------|
| H. Dudley, Esq., C.B.R. | { | <i>Proposed by Mr. E. L. Layard.</i>   |
|                         | { | <i>Seconded by Mr. Justice Starke.</i> |

|                        |   |                                        |
|------------------------|---|----------------------------------------|
| R. Gerhard, Esq. Kandy | { | <i>Proposed by Rev. D. J. Gogerly.</i> |
|                        | { | <i>Seconded by Mr. E. L. Layard.</i>   |

|                         |   |                                     |
|-------------------------|---|-------------------------------------|
| Don Domingo Wijaya-     | { | <i>Proposed by Mr. L. De Soyza.</i> |
| sinhe, Mohandiram Kandy | { | <i>Seconded by Rev. Mr. Alwis.</i>  |

Read a letter from the Colonial Secretary, transmitting by order of His Excellency the Governor, a copy of Magnetical and Meteorological observations, made at the Cape of Good Hope Observatory, printed by order of Her Majesty's Government.

It appeared, on reference to the title page, that the work had been forwarded from England by order of the Government to the Governor of Ceylon, to be presented to such Literary or Scientific Institution in the Island as to His Excellency should seem fit, and that His Excellency had himself addressed it to this Society.

It was unanimously resolved, that the Society do, through their Secretary, convey to His Excellency Sir G. W. Anderson, their best thanks for the donation thus handsomely made to their Library.

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*Presented by the Board of Regents of the Smithsonian Institution.*

Vol. II. Smithsonian Contributions to Knowledge.

Fourth Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1849.

Report of the Smithsonian Institution, on the discovery of the Planet Neptune, by Benjamin Apthorp Gould, jun.

Notices of Public Libraries in the United States of America, by Charles C. Jewett, Librarian of the Smithsonian Institution.

Proceedings of the American Association for the Advancement of Science—Fourth meeting, August 1850.

With reference to the Singhalese numerals, sent to the Society by Mr. A. O. Brodie from Anoorajapoorra, laid before the last Meeting, and entrusted to Mr. L. De Soyza for examination and report; Mr. De Soyza stated, that having in the course of his inquiries into the subject met with some interesting facts, he proposed embodying them in a short paper, which he trusted would be ready by the next Meeting.

Mr. Gogerly then read a paper on Buddhism.

The Rev. C. Alwis moved that the paper then read be sent to the Reading Committee for report; the Rev. J. Kats seconding the motion, it was carried.

The Secretary representing that a vacancy existed in that Committee, occasioned by the removal of Captain Neill to Kandy, it was resolved that the Rev. C. Alwis be requested to fill the said vacancy. Mr. Alwis accepted the proposal.

Mr. Layard exhibited the Society's shells, and the additions he had made to them, arranged in some slight order; but stated he had not consulted the members of the Committee on Science on the final arrangement or disposition of them, therefore made no report. The Meeting then adjourned.

E. L. LAYARD,  
*Hon'y. Secy.*

## GENERAL MEETING, HELD 2ND OCTOBER, 1852.

*Present* :—Lieut.-Colonel WILSON in the Chair.

Rev. J. Kats, D. J. Gogerly, C. Alwis, Messrs. J. Dalziel, M. Coomarasamy, J. De-Alwis, L. De Soyza, H. Dudley, C.R.R., C. Lorensz ; Lieut. Schaw, Dr. Lamprey, Dr. Misso, R. Dawson, Esq., Treasurer, and E. L. Layard, Esq., Secretary.

Read letters from Mr. Justice Starke and Dr. Hoffmann, expressive of regret at not being able to attend the Meeting. Read and confirmed the Minutes of last Meeting.

Read letter from J. N. Mooyaart, Esq., signed Chairman of the Jaffna District Committee, enclosing Minutes of Meeting held in Jaffna on the 18th September, 1852.

The recommendation of the Managing Committee on the subject being put to the vote and lost:—

It was moved by the Rev. D. J. Gogerly, seconded by Mr. E. L. Layard, and carried unanimously—

“ That no Members be allowed to expend any part of the Society's funds, except on the special grant of a General Meeting, and that all contributions and subscriptions paid at out-stations, be as speedily as possible remitted to the Treasurer.

Moved by Mr. E. L. Layard, “ That the Vice-President, the Rev. D. J. Gogerly, and H. Dudley, Esq., be requested to act as a Sub-Committee for the purpose of drawing up Rules for the guidance of the District Committees.”—Lost.

Moved by the Rev. D. J. Gogerly, and seconded by Dr. Misso, “ That the Managing Committee do report in detail to the next General Meeting, on the formation of the District Committees.”—Carried.

With reference to the recommendation of the Managing Committee, “ That the engagement of a Peon to distribute the Society's Notices, &c., upon a salary of 5s. per mensem” be adopted,—It was resolved that the recommendation be adopted.

The Managing Committee report the death of Capt. W. F. Smith Neill, the Society's late Secretary, and recommend that the following expression of regret be entered upon the

Minutes of the Society, and conveyed by the Secretary to his family.

"That this Meeting do record their sense of the loss this Society has sustained by the premature and lamented death of their late Secretary, Capt. W. F. Smith Neill, R. A. On his removal from Colombo by Military arrangements, he ceased to act as the Secretary of the Society; but wherever he was stationed, his youthful aspirations, the literary and scientific turn of his mind, and his anticipations of future fame, were calculated to be of benefit. Stirring up the indolent, shaming the negligent, and infusing into Society an impulse which, with a growing maturity of experience, might have led to valuable results; this Society, and the limited community of a literary character of this place, can ill afford the loss of such Members as Capt. Neill."

Proposed by Mr. Alwis, seconded by Mr. Coomarasamy, "That this recommendation of the Managing Committee be agreed to and entered on the Society's Minutes."—Carried unanimously.

Moved by Mr. E. L. Layard, "That the sum of £5 be granted for the purchase of instruments and materials for the use of the Museum, and that the Managing Committee be authorised to employ a person as Taxidermist and Librarian, at the rate of £3 per mensem, until the next Anniversary Meeting." Seconded by Rev. D. J. Gogerly, supported by Mr. J. De Alwis.—Carried.

Moved by Mr. Dalziel, seconded by Mr. E. L. Layard, "That a copy of the Rules of the Society, signed by the President and the Secretary, be suspended in some conspicuous place in the Society's Rooms, and that any alterations or additions be from time to time inserted as they occur, and signed as before."—Carried.

Moved by the Rev. D. J. Gogerly, and seconded by Lieut.-Colonel Wilson, "That the Secretary do convey to His Excellency Sir G. W. Anderson the thanks of this Society for the kind and timely assistance afforded to it, by permitting the publication of its Journals at the Government Press."—Carried by acclamation.

The Secretary reported the resignation of R. E. Lewis, Esq., which causing a vacancy in the Managing Committee, Mr. E. L. Layard moved, and Lieut.-Col. Wilson seconded the motion, that H. Dudley Esq., C.R.R., be requested to fill the vacancy.—Carried.

Mr. Dudley acceding to the request, his name was entered on the Managing Committee.

With reference to an extract of a letter from Lieut. Henderson, C.R.R., read by the Secretary, it was moved by Lieut.-Col. Wilson, and seconded by Mr. H. Dudley, "That the Secretary be directed to return to Lieut. Henderson his communication on the foot prints in the rock at Kurnegalle, with a request that that Gentleman would be so good as to draw up a new paper, embodying any fresh matter he may be able to communicate on a subject so deeply interesting to the Society."—Carried.

Moved by Dr. Lamprey, and seconded by Mr. E. L. Layard, "That with reference to the Circulars from the Society of Arts on the new Industrial Exhibition, laid on the table at a former Meeting, the Ceylon Branch of the Royal Asiatic Society take the matter into its consideration, in order to carry out the objects of the Society of Arts, so far as Ceylon is concerned; and that a Committee be named to carry out these views."—Carried.

Pursuant to notice, Mr. E. L. Layard brought forward his motion on the propriety of out-station Members voting on questions before General or Special Meetings.

After much conversation and discussion, the sense of the Meeting being decided on a restricted view of the case, Mr. Layard withdrew his motion, and the Secretary was desired to record on the Minutes, that the sense of this Meeting is decided on the point, that out-station Members have the privilege of proposing and seconding gentlemen for admission as Members, provided they communicate their wishes in writing.

Moved by Dr. Lamprey, and seconded by Mr. E. L. Layard, "That the Photographic apparatus now on sale at Messrs. Middleton and Co's establishment, be purchased for a sum not exceeding £5."—Carried.

Moved by Dr. Lamprey, and seconded by Lieut. Schaw, "That an Electro-typing apparatus be purchased for a sum not exceeding £5."—Carried.

The Chairman stated, he regretted that his speedy departure to England would compel him to resign his connection with the Society; but added, that if he could advance the interests of the Society in any way in England, he should be most happy to do so.

Moved by Mr. Dudley, and seconded by Lieut. Schaw, "That this Meeting do record the expression of their regret at the departure of Col. Wilson from the Island, and that he be elected an Honorary Member of the Society."—Carried by acclamation.

Colonel Wilson returned thanks.

G. F. Arndt, Esq., proposed by J. N. Mooyaart, Esq., and seconded by J. De Alwis, Esq., was then elected a Member of the Society.

The following Donations were then laid on the table:

1. Journal of the Statistical Society of London.
2. The Sidath Sangarawa, by Mr. Alwis the author.
3. The Lanka Nidhana, from the Editor.
4. The Lankabhiwardia, from the Editor.

The thanks of the Society were voted to the donors.

The thanks of the Meeting being then voted to the Chairman, the Meeting adjourned.

E. L. LAYARD,  
*Secretary.*





GENERAL MEETING, HELD 27TH NOVEMBER, 1852.

*Present*:—The Hon'ble Mr. Justice STARKE, Vice-President, in the Chair.

The Rev. J. D. Palm, Rev. J. Kats, Rev. G. R. Muttukistna, Rev. C. Alwis, Dr. Misso, Messrs. Simon Casie Chitty, Muttu Coomarasamy, L. De Soyza, J. Dalziel, J. Casie Chitty, R. Dawson, Treasurer, E. L. Layard, Secretary.

Read and confirmed Minutes of last Meeting.

The Secretary reporting that the Minute and Correspondence books, and all the Meteorological Instruments belonging to the Society, had been sent to England with the late Secretary's (Captain Neill's) effects; it was resolved, that the Secretary do communicate with Captain Neill's friends, and endeavour to recover them.

The Secretary read the following recommendation from the Committee of Management.

"That the Committee do recommend that the year be divided into two parts, ending 30th June and 31st December respectively—that all persons elected Members of the Society before the 30th June, should pay their year's subscription and entrance fee; and that persons elected after that date should not be called upon for their subscription for the current year, but only for their entrance fee."

This recommendation being put from the Chair was approved of:—ordered accordingly.

Read a letter from Dr. Kelaart (marked A.)

Read a letter from Mr. De Soyza, and its enclosure, (marked B.)

Read an extract from a letter from Mr. Skeen relative to printing matters, (marked C). With reference thereto the Secretary was requested to proceed with the publication of the Society's Journal.

Moved by Mr. E. L. Layard, seconded by Mr. Simon Casie Chitty, "That the Committee of Management be requested to prepare a Schedule of expenditure of the funds of the So-

ciety in the hands of the Treasurer at the end of the year, for the more advantageous expenditure of the same:—this Schedule not to be departed from except in cases of urgent necessity.”

After much discussion, the Vice-President, seconded by the Rev. J. D. Palm, moved as an amendment, that the proposition be referred to the Managing Committee for Report.

The original motion and amendment being put from the Chair, the amendment was carried by a majority of one.

Moved by Mr. E. L. Layard, and seconded by the Vice-President, that the “Annals and Magazine of Natural History,” be added to the list of Periodicals taken by the Society:—carried.

Moved by Mr. M. Coomarasamy, that the following works be purchased by the Society.

Historical sketch of Sanscrit literature, with copious Bibliographical notes from the German of Adelung, 3s.

Bija Ganitar, or the Algebra of the Hindus, translated by Edward Strachey, 10s. 6d.

Fragmens du Mahabharatta traduits en Francais, sur la texte Sanscrit de Calcutta, par M. Paver, 6s.

The Ramayana in the original Sanscrit, with an English prose translation, and notes by W. Carey and J. Marshman.

Essai sur le Pali, par E. Burnouf et Ch. Laessen, 14s.

Madras Scientific Journal.

Ordered, that the list be submitted to the Oriental Committee for report.

The following gentlemen were then ballotted for and elected Members of the Society.

|                       |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| Hew Stewart, Esq. .   | { Proposed by Mr. M. Coomarasamy.<br>Seconded by Mr. Simon C. Chitty.  |
| W. Skeen, Esq. .      | { Proposed by Mr. E. L. Layard.<br>Seconded by Dr. Misso.              |
| J. Casie Chetty, Esq. | { Proposed by Rev. G. R. Muttukistna.<br>Seconded by Mr. Coomarasamy.  |
| Rev. S. Nicholas .    | { Proposed by Rev. G. R. Muttukistna.<br>Seconded by Mr. E. L. Layard. |

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*Library.*—The following donations were then laid on the table.

Nos. 2, 3, 4, 5, 6, of Journal of the Eastern Archipelago—*Presented by the Editor.*

Nos. 1, 2, 3, 4, of the Journal of the Asiatic Society of Bengal for the current year—*From the Asiatic Society of Bengal.*

Meteorological Observations made at Hobart Town—*Presented by His Excellency Sir George W. Anderson.*

The Secretary was ordered to convey the thanks of this Society to the several donors.

*Purchased.*—No. 31, Vol. 8, of the Journal of the Geological Society of London.

*Museum.*—The Secretary reported the following donations :—

2 Varieties of fresh water Fishes.

18 Do. Marine.

2 Do. Snakes.

2 Centipedes.

1 Scorpion.

4 Varieties of Lizards.

1 Crustacean—*Presented by Mr. E. L. Layard.*

2 Varieties of Snakes.

1 Tree Frog.

2 Varieties of Lizards.

4 Do. Coleoptera—*Procured by the Taxidermist.*

A quantity of Bottles presented by Dr. Misso.

The Secretary reported the purchase of a new stand for the reception of specimens in bottles.

Mr. E. L. Layard exhibited a specimen of Sea Island Cotton, grown in the Colonna Corle, Western Province. It was announced to be of pretty good fibre and of middling strength, but its colour had been entirely spoilt.

The Secretary announced that the following papers were ready for perusal.

On some of the Ancient Capitals of Ceylon—By Woodford Birch, Esq., Kornegalle.

On Native Ranks and Titles—By the Hon. Mr. Justice Starke, V. P.

Ornithology of Ceylon, Part I.—Accipetres. Diurnal and Nocturnal Birds of Prey—By Dr. Kelaart and Edgar L. Layard, Esq.

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The President moved, that as it was growing late, this Meeting do adjourn till Saturday next at 1 o'clock, p. m., for the purpose of reading the papers now before it.

Mr. Simon C. Chetty seconded the motion.

Mr. E. L. Layard opposed the motion, on the ground that Meetings in the day-time interfered with official duties, and if they were frequent he should feel it incumbent upon him to resign the honour of being the Society's Secretary. He moved, as an amendment, that the reading of papers be postponed till the Evening Meetings.

Mr. Dawson seconded the amendment.

A considerable discussion now ensued, and the original motion and the amendment being put from the Chair, the latter was carried by a majority of one.

Mr. Dawson kindly placing his house at the disposal of the Members for the next Evening Meeting, it was resolved to adjourn this meeting till Wednesday next at 8 o'clock, p.m., at Mr. Dawson's residence; and the thanks of the Meeting having been voted to the Chair, it adjourned accordingly.

E. L. LAYARD,  
*Hony. Secy.*

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A.

*Kaduganava, 22d November, 1852.*

*To the Secretary of the Asiatic Society of Ceylon.*

MY DEAR SIR,

It gives me great pleasure to find you the successor of so worthy a man as the late Secretary, whose untimely death no one could deplore more sincerely than I do; and it is to be hoped that your period of office will be a longer one, and that before it is terminated you will have established for the Society what is now wanted, viz. a Museum of all the Zoological productions of the Island. Calcutta, Madras, and Bombay, have each a Museum, *Ceylon none*, or only apologies for one. The Society alone could not support an institution of the kind; the aid of Government is required; and surely the Legislative Council will not hesitate to vote £100 a year for so laudable a purpose.

I regret that my health has not permitted me to complete the first part of our conjoint paper on the Ornithology of Ceylon. But if the Society will receive a small portion of it as an instalment of what is to come, I promise to have the rest done in time to appear in the next Number of the Journal. My work is nearly ready for delivery. Since it was completed, I have come up here for the benefit of my health. Although the Estate is not very prolific of Coffee, its soil has yielded not less than four species of *Uropeltidae*, or rough tails (Dapat Nayas), one the very remarkable species with keeled scales to the shield of the tail, *Siluboura Zeylonicus*, Cuv. R. A. ii. 76. The three others are not described in Grey's Catalogue, nor do they belong to any of the three divisions of *Uropeltidae* given by Mr. Gray. I have proposed new genera for them. One of the three is already described in my work, from specimens collected at Trincomalie. The two others are new to me; one, a very elegant species, I propose calling after an old friend, *Uropeltis Trevelyani*, it is about 14 inches long, and 1 inch in circumference. Black above, margin of scales pale. White beneath, with longitudinal series of black spots, formed of central spots on each scale. A line of triangular white spots, with their apices pointed upwards along each side; vent and lower part of tail white, which is carried on to the upper part. Tail short, obliquely truncated, and nearly covered with a conical granular shield. Vent shields 1—2. The young is of a bluish or bluish black. Found about three feet under ground in ant-holes.

The other species, which I propose naming after our distinguished friend Mr. Blyth, is 16 inches long; circumference 1 3-10th inch. Head 4-10th inch. Dark yellowish brown above, with darker brown spots on the anterior third of scales. Paler beneath. Sides of nape and neck waved with angular spots of yellowish hue, yellow spots on each side of vent. Rostrum yellow. Tail thick, slightly truncated, conical, upper part of termination covered with a small subtriangular granular shield, lower surface smooth, covered with broad scales. Vent shields 1—2. This species too is found in the same locality, but on softer ground, near rivulets.

Singular that I have not been able to get any specimens of *Typhlops*, the *Argyrophis Bramicus* must be found in the paddy fields at Colombo. This is the only species of this genus hitherto seen in the Island. India produces many, and as many no doubt exist in Ceylon, if people will only bring all they meet with in the marshes. I am not collecting any birds, and I have not seen any which I have not previously got. The most numerous species here at present are two kinds of finches, *Amadina undulata* and *A. Malabarica*, *Zosterops palpebrosus*, *Pycnonotus Hemorrhinus*, and *P. nigricapilla*; *Palæornis cyanocephalus*, and your beau-

tiful new species, *P. Calthropæ*. *Psittacus Asiaticus* is also abundant. *Copsychus saularis* and *Malacocercus griseus* are also plentiful.

I have described a new species of house lizard found here, *Gymnodactylus Kandianus*, much smaller than the common house lizard of Colombo, *Hemidactylus frenatus*, of which we have here a very large variety, I presume, unless it turns out to be the much coveted *H. Leschenaultii*. The new *Gecko*, above alluded to, is a *diurnal species*, with round pupils. The pupils of every other species known in the Island are vertical (like cat's eyes.) Here we see a very curious adaptation of the visual organs to the habits of the animal. I have also added lately *Piripia Peronii* to my list of *Gechotidæ*; it is easily known by its clawless thumbs. They are very abundant on every house in the town of Kandy and Kaduganava. I hope you will induce other Members of the Society to communicate in a familiar manner any Zoological or Botanical notes they may make, so that every circumstance, however trivial and unimportant it may seem, may prove interesting to the *future* if not to the *present* Members of this Society. "Nihil est aliud magnum quam multa minuta."

Believe me,

Very sincerely your's,

E. F. KELAART.

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P.S.—Since writing the above, I have spent a few days at Dr. Marshall's, Allagalla, where I have obtained a species of *Nessia*, probably identical with *N. Burtonii* of Gray, of which there appears to be only *one* specimen in the European cabinets, and that, too, at Fort Pitt Museum, doubtless sent there many years ago, by some Army Medical Officer serving in Ceylon, if it proves now that my specimen is of the same species; of this, however, I have some doubts. You will observe that Gray founded the genus *Nessia* from this solitary specimen in Fort Pitt, and named it after Staff Surgeon Burton, who was then in charge of the Museum.

The specimen from Allagalla (3000 ft.) is vermiform in appearance, about 5 inches long, with 4 small legs, having 3 sub-equal small toes on each. Dark rufous brown above and spotted with darker brown on the anterior part of each scale. Dark grey beneath, clouded and spotted. Found in vegetable mould on a Coffee plantation. From the same interesting locality, I have a specimen of *Argyrophis Bramicus*, (young,) brown above with a broad pale whitish line beneath. The crenulated subterminal edge of the rostral and nasal shields, became very perceptible after the specimen was immersed in spirits for some days. In the collection you have sent me for examination, I find a *Typhlops*, in which the head is

partly destroyed. The other little spotted creature, of an olive brown colour, is evidently the young of a species of *Aconitas*, which is not described in Gray's Catalogue; if new, I shall have much pleasure in naming it *Aconitas Layardi*. The only other species of the same genus in the British Museum is *A. meleagris* from the Cape of Good Hope. In form the genus *Aconitas* is very like *Nessia*, without the limbs, or external opening to the ear.

E. F. K.

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B.

*To the Secretary of the Ceylon Branch of the Royal Asiatic Society.*

SIR,

I have deferred returning Mr. Brodie's letter on the subject of Singhalese Numerals, in the expectation of procuring a copy of an ancient Singhalese work, which I had been given to understand exists on the subject, and of submitting a translation of it to the Society; but being disappointed in this expectation, I hasten to return the letter, with many apologies for detaining it so long with me.

I have, however, little or nothing of importance to add to Mr. Brodie's explanation of the system of Singhalese Numerals, which appears to be correct. These numerals may be found in Chater's Singhalese Grammar, Prinsep's Comparative table of Alphabets, and in a recent work on Singhalese Grammar published by a learned Member of our Society.

In reference, however, to that part of Mr. Brodie's letter, in which he speaks of the difficulty of carrying on any arithmetical operation by means of these numerals, and inquires how the "Native Astrologers make their calculations," and whether "they do calculate at all?" I venture to submit a few remarks, which I hope may not altogether prove devoid of interest.

Mr. Brodie is quite correct in saying, that "the commonest arithmetical processes become almost impossible under this system;" but it must not hence be inferred that the native astrologers make no calculations. I believe it is well known that the natives do make calculations, not only in Astrology, but in Astronomy, which cannot be done without a considerable knowledge of the science of numbers, as is evident from the fact of their being able to predict the eclipses of the sun and moon, and determine the positions of the planets; though of course on principles less accurate and less perfect than those of Modern Europe.

For the purpose of these calculations, however, they do not employ the numerals in question, but either use some small shells or grains of paddy (by means of which an arithmetical operation is easily carried on), or another series of numerals called "*Katapayadi ganana*," in which numbers are expressed much in the same way as in European systems of notation.

The latter system serves the double purpose of a system of numerals and of artificial memory, closely resembling Dr. Grey's *Memoria Technica*.

It is called කටපසාදිගණනා, from the first series of letters representing the numeral one. The following letters represent the following numbers.

|             |    |
|-------------|----|
| කටපස.....   | 1. |
| බඩ්ඵර ..... | 2. |
| ගඬබල .....  | 3. |
| ඝඝභව.....   | 4. |
| ධනංග .....  | 5. |
| වගභ .....   | 6. |
| ජඵස .....   | 7. |
| ජදභ .....   | 8. |
| කබල .....   | 9. |
| කුණ .....   | 0. |

By means of these letters an artificial word may be formed precisely in the same manner as is done in Dr. Grey's system of Mnemonics. Thus the present year of the Buddhist era 2395, may be expressed මොලි ගොනු. The Saka era 1774 ව්විසත, the only difference between this system and that of Dr. Grey being, that in the one figures are read from right to left, and in the other from left to right.

There is another highly curious way of denoting numbers by means of different objects of nature. This is called භූතසංධනව, and from its apparently primitive and hieroglyphical character, I fancy may be traced to a period antecedent to the discovery of alphabetical writing. Some idea of the principles upon which this system is founded, may be formed from the following examples, which occur in ancient Sanscrit and Singha-lese works; thus

|                             |   |                                                                        |
|-----------------------------|---|------------------------------------------------------------------------|
| මේරු (Meru) . . . . .       | { | represents 1 (there is but one Meru mountain in the world.)            |
| චක්‍ර (eyes) . . . . .      | — | represents 2.                                                          |
| ශිව (Shiva) . . . . .       | — | " 3. (Shiva has 3 eyes.)                                               |
| වේද (Veda) . . . . .        | — | " 4. (There are 4 Vedas.)                                              |
| සර (sara) darts . . . . .   | { | " 5. (there are 5 darts of Cupid.)                                     |
| රස (rasa) tastes . . . . .  | — | represents 6. (there are 6 tastes.)                                    |
| සෙල (seila) rocks . . . . . | { | " 7. (there are 7 principal rocks in the native systems of Cosmogony.) |



|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| නාග (naga) . . . . .         | { represents 8. (the reason why (Na-<br>ga) represents this No. is not ap-<br>parent.) |
| ග්‍රහ (graha) . . . . .      | —represents 9. (there are 9 planets.)                                                  |
| මාර්තාඨ (marthanda) Sun. {   | " 12. (he passes through<br>the 12 signs of the Zodiac.)                               |
| ආකාස (ākāsa) space . . . . . | —represents 0.                                                                         |

There is another series of numerals in use among the Singhalese, called "Lit-illakkan" "Almanac Numerals;"—they are as follows:

|             |     |
|-------------|-----|
| ෧ . . . . . | 1.  |
| ඌ . . . . . | 2.  |
| ඹ . . . . . | 3.  |
| ඊ . . . . . | 4.  |
| උ . . . . . | 5.  |
| ආ . . . . . | 6.  |
| ඈ . . . . . | 7.  |
| ඉ . . . . . | 8.  |
| ඊ . . . . . | 9.  |
| උ . . . . . | 10. |
| ආ . . . . . | 11. |
| ඈ . . . . . | 12. |
| ඉ . . . . . | 14. |
| ඊ . . . . . | 19. |
| උ . . . . . | 20. |
| ආ . . . . . | 30. |

These numerals do not extend beyond the number 60, the number of *payas* in a day according to the Singhalese division of time.

I remain, Sir,

Your most obedient servant,

L. DE ZOYSA.

Anooradhapooru, 15th July, 1852.

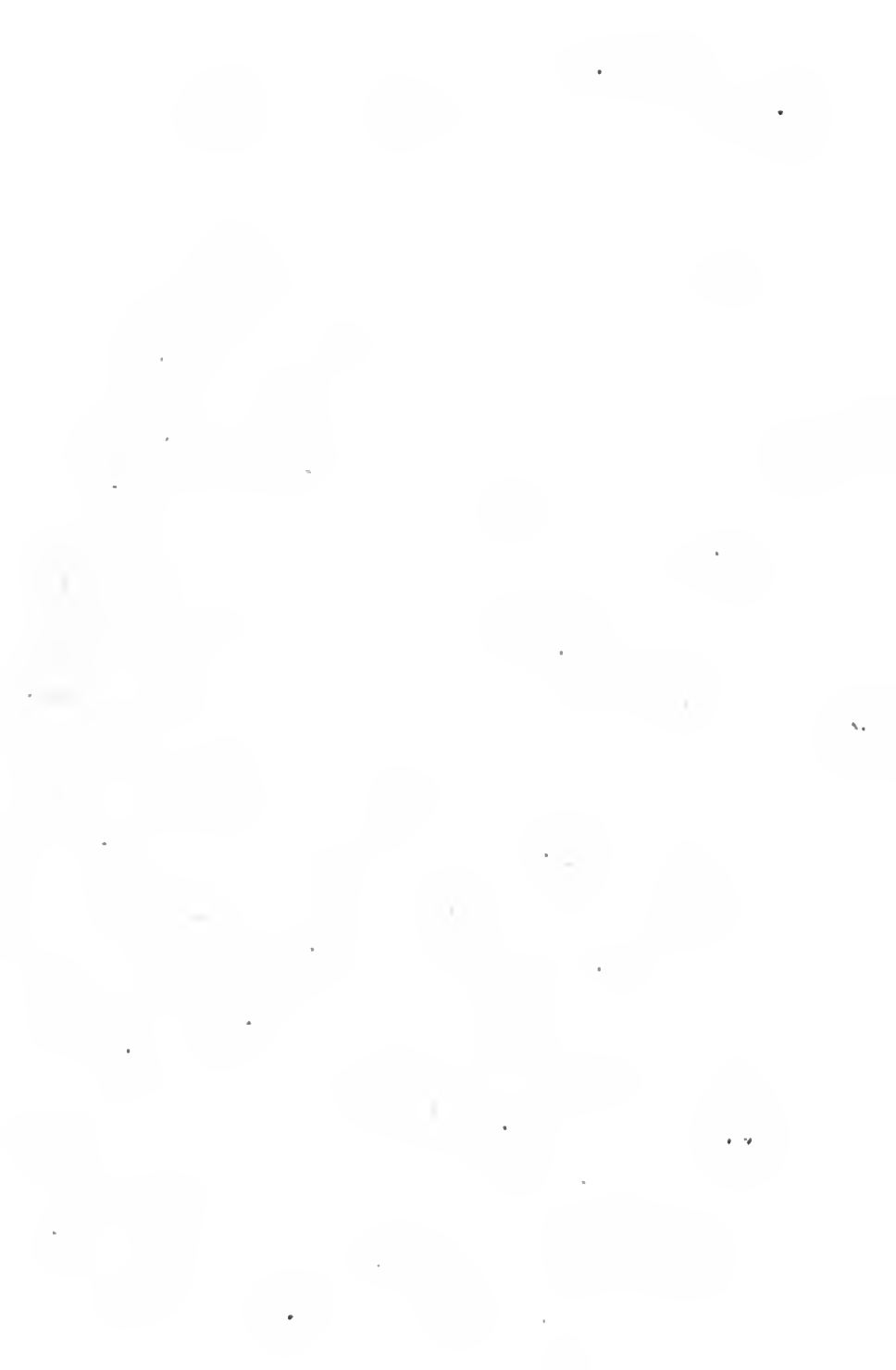
SIR,

I have the pleasure to enclose a list of the Singhalese Numerals up to ten thousand. It may be that these are known to many Members of the Society, but they are certainly almost obsolete at the present day, and I had so much difficulty in obtaining them, that I think it possible that some one may be saved trouble by having this table before him.

# SINGHALESE NUMERALS.

|    | 0  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   |
|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | 0  | ෧   | ෨   | ෩   | ෪   | ෫   | ෬   | ෭   | ෮   | ෯   |
| 10 | ස  | ස෧  | ස෨  | ස෩  | ස෪  | ස෫  | ස෬  | ස෭  | ස෮  | ස෯  |
| 20 | සි | සි෧ | සි෨ | සි෩ | සි෪ | සි෫ | සි෬ | සි෭ | සි෮ | සි෯ |
| 30 | ති | ති෧ | ති෨ | ති෩ | ති෪ | ති෫ | ති෬ | ති෭ | ති෮ | ති෯ |
| 40 | ත  | ත෧  | ත෨  | ත෩  | ත෪  | ත෫  | ත෬  | ත෭  | ත෮  | ත෯  |
| 50 | සි | සි෧ | සි෨ | සි෩ | සි෪ | සි෫ | සි෬ | සි෭ | සි෮ | සි෯ |
| 60 | ආ  | ආ෧  | ආ෨  | ආ෩  | ආ෪  | ආ෫  | ආ෬  | ආ෭  | ආ෮  | ආ෯  |
| 70 | භ  | භ෧  | භ෨  | භ෩  | භ෪  | භ෫  | භ෬  | භ෭  | භ෮  | භ෯  |
| 80 | පි | පි෧ | පි෨ | පි෩ | පි෪ | පි෫ | පි෬ | පි෭ | පි෮ | පි෯ |
| 90 | භි | භි෧ | භි෨ | භි෩ | භි෪ | භි෫ | භි෬ | භි෭ | භි෮ | භි෯ |

෦ 100    ෦ 1,000    ෦ 10,000



As will be observed, the numerals follow a decimal notation; they do not however take value according to position, nor yet are there any coefficients to answer the same end, there is simple juxtaposition of the isolated numbers and nothing more. Thus 1852 would be written thus:

|     |          |       |         |       |     |         |
|-----|----------|-------|---------|-------|-----|---------|
| ௧   | ௮        | ௨     | ௮       | ௫     | ௨   | that is |
| one | thousand | eight | hundred | fifty | two |         |

a separate sign for each word.

Of course the commonest arithmetical processes become almost impossible under such a system, and mental calculation must be resorted to. It would be interesting to know how the native astrologers make their calculations, that is, if they do calculate at all: and also, the affinity which may exist between the numerals of the Singhalese and other allied tribes, such as some of the hill people on the Continent of India; and lastly, whether these signs are, in fact, the letters of any language.

I am not aware that there is any sign equivalent to our 0, nor does it appear distinctly that the signs for the multiples of ten are compounded of the sign for ten and that for its multiplicator.

I have the honor to be,

Sir,

Your most obedient servant,

A. OSWALD BRODIE.

*The Secretary of the  
Royal Asiatic Society,  
Colombo.*

# ANNUAL GENERAL MEETING, HELD 5TH MARCH, 1853.

*Present*:—Rev. D. J. GOGERLY in the Chair.

R. Dawson, Esq., Rev. C. Alwis, Mr. L. De Zoysa, Mr. J. Alwis, Dr. J. B. Misso, Mr. M. Coomarasamy, Captain Dudley, C. R. R., and Dr. Lamprey, 15th Regiment.

THE following Report of the Committee by the Hon'ble Justice Starke, acting Secretary, was read and adopted.

## *Report.*

“YOUR Committee, in making their Report at this time, have to renew their expressions of regret at the early and lamented decease of the former Secretary of your Society,

and the retirement of another, since the last Annual Meeting. Such events necessarily affect the movements of a Society like this ; and they, with other circumstances, have concurred to give an appearance of less efficiency to the proceedings of the Society during the past year than we had any reason to expect. On the contrary, our anticipations were of the most favourable kind.

But notwithstanding all this, your Committee cannot doubt either the importance or the progress of the Society, both absolutely and relatively.

The funds of the Society have been accumulating, and are at present larger in amount than at any former period ; and in the course of the past year, a very considerable addition has been made to the list of Members, while the donations to the Library and Museum tend at once to enrich our stores with objects of permanent value, and to evince a continued confidence in your Society, as the proper depository of all that may conduce to illustrate the condition or develop the resources of the Island. And your Committee, observing the contributions in Science made by Members of your Society elsewhere, cannot doubt that with better means for the reception, examination, and arrangement of donations, such would be very largely increased.

And here your Committee would express a hope, that His Excellency the Governor, who by his donations to the Library, and the leave so readily granted by him to have the Journal again printed at the Government Press, has manifested his patronage, will favour the Society by directing arrangements which will ensure to us a freer use of the room than we latterly have had. This would allow an extended accommodation for the Library and Museum, as well as for the Meetings of Members ; and they confidently anticipate, that on a representation of the matter, such an arrangement would be made.

Your Committee therefore consider, that their attention should be continued to this subject, with a view to such ex-

tended accommodation, and they would at the same time suggest, that a Curator of the Museum should now be appointed, whose duty it shall be to superintend the reception of all articles in that department transmitted to the Society, and to have the same speedily submitted to examination, and reported on, and suitably arranged; the Librarian continuing his attention to the Books, Manuscripts, Coins, and Antiquities of the Society.

The increasing number and value of the articles in the Library and Museum, as well as the different character of study and skill required in the several departments of Science and Literature, render such separation of duties desirable, and now requisite, for the proper care and advancement of the departments.

The Curator of the Museum will thus be a permanent office-bearer of the Society, distinct from the Librarian, and elected annually with the other office-bearers.

The present Taxidermist was appointed at the Meeting of 20th October last, on trial for three months, at £3 per mensem, and he still continues. Your Committee think his fitness should now be settled, and they recommend that the matter be referred to the Committee, with powers for appointment, or for further trial, or for the trial of any other, as they in conjunction with the Curator of the Museum, shall see fit.

Adverting also to the state of the Library, your Committee consider authority should be given to procure additional cases for the increasing number of the books; and as some inconvenience has been felt in regard to ship and other charges for letters and packages, and for the calling in of books from out-stations, your Committee are of opinion that the Treasurer should be authorized to defray all necessary charges in this respect, under the sanction and direction of the Committee; it being always distinctly understood that the carriage of books to Members, and the due return of borrowed books, is at the expense of the parties.

Moreover, as nothing definite has yet been done in regard to the five issued Vols. of Reeve's *Iconica Conchologica*, mentioned at a late meeting of the Committee as for sale and in good order, your Committee are of opinion that the subject should be again referred to them for consideration: so as in this as in other cases, a favourable opportunity of adding to the Library books of acknowledged value should not be lost.

Your Committee would further propose that the General Rules and Regulations of the Society, and the Rules of the Library, should, together with a Catalogue of the books and various articles contained in the Library and Museum, be printed in a concise form and separately from the Journal, for the information of Members and others, and that the stores of the Society may be made as available as possible, as well as deficiencies seen and supplied.

And here your Committee are led to observe, with reference to another Society in Colombo, that they are not in the least conflicting Societies; they differ altogether in their constitution, in their purposes, and in their mode of operation.

The design of this Society is to institute and promote inquiries into the History, Religion, Literature, Arts and Social Condition of the present and former inhabitants of this Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology. The object of the Colombo Athenæum is wholly different; and they pursue their respective objects in quite a different way. The Athenæum is not limited as to place, nor restrained as to its subjects; and in its endeavours to unite in the Lectures given, the interest which may arise from oral delivery, from the play of fancy, or the resources of intellect, in illustration, and the more substantial course of views, diagrams, and experiments, it seeks to convey information with amusement, to take us up the hill of knowledge and to the heights of science, otherwise than by the old way of a laborious and difficult ascent, and make learning pleasant to the soul not merely when attained but in the very process of acquiring it.

The two Societies may therefore go on, not only without rivalry but without jealousy; and all may contribute to literary and social progress.

Since the last Quarterly Meeting the following additional numbers of the Journal of the Indian Archipelago have been received, vizt. for July and August (one No.) in December last, and for September and October recently.

The Rev. B. Boake has also favoured the Society by presenting to the Library Vol. 3 of the Transactions of the Royal Asiatic Society, and a volume of Specimens of the Popular Poetry of Persia, collected and translated by A. Chodzko, Esq.

A communication was also received in December last from W. C. Ondaatje, Esq., Badulla, with the Articles mentioned in a Memorandum of Vegetable products of Ceylon, presented by him to the Society, as follows, viz.

"1. Cinnamon suet. Oil from the seeds of the Cinnamon, collected at Badulla.

2. Oil from what I think the *Daphnidium, Cubeba, Nees., Laurus Cubeba, Laur.*

3. Ceylon Gamboge Oil.

4. Oil from Ceylon Oak, *Schleicheia trijuga.*

5. Fibrous Sack, prepared from the *Liber* or *endothaleum* of a tree described in my "Observations," (on the Vegetable Products of Ceylon.)

6. Specimen of Tinnevely Senna, cultivated at Putlam by me.

7. Wood Oil or Wood Tar extracted from the *Sethia Indica*, collected at Putlam, together with a dried specimen of the tree.

8. Root of the *Rubia cordifolia* which was discovered by me on the 8th December, 1852, at Badulla."—*Badulla, 15th December, 1852.*

In reference to No. 5 of the preceding list, your Committee would draw the attention of the Curator of the Museum, by whom the articles will be carefully examined, to a "specimen of the wood of the *Riti Gaha*, and a bag made of the bark as used by the natives, from E. R. Power, Esq.," and laid before the Society 1st December, 1849.

Your Committee recommend that a Local Committee be now appointed for Jaffna, the more effectually to carry



out the objects and advance the interests of the Society at that important station, by collecting information on the spot, on the several subjects within the sphere of the Society's operations, and forwarding the same with suggestions, to the Secretary of the Society at Colombo,—such Committee having, however, no power or authority to collect or receive money otherwise than in conformity with the Rules and Regulations of the Society, nor to incur any expense without the previous sanction of the General Committee of the Society. Other Local Committees will also fall to be appointed at subsequent meetings of the Society, as circumstances appear to require.

Your Committee further recommend, that Capt. Chapman's letters, of date February and March 1852, be referred to the Oriental Committee for their consideration and report, so that an answer to those interesting and valuable letters may be despatched at the earliest opportunity. The same Committee should also be instructed to collect together the figures, sculptured slabs, and inscriptions or copies of such, belonging to the Society, as also the plan of the ruins of Pollaneuera near Trincomalee, presented by J. N. Mooyaart, Esq., and make a Report thereon.

And as several valuable specimens of the woods of Ceylon have at different times been presented to the Society, your Committee recommend that a Committee should be appointed to collect these together and report on their number, description, character and economical uses, with suggestions in regard to their future custody and inspection.

From the Treasurer's statement which is annexed, of date 5th February, there is a balance in favour of the Society of £88 12s. 3d., independent of the arrears yet to be collected and the subscriptions for 1853 now due.

Your Committee have at length the satisfaction of laying upon the Table a portion of the second Volume of the Society's Journal. There was reason to suppose it would have been out before the close of last year; but in this your Com-

mittee were disappointed, and even now there are several pages in print, which, as they require revision, have been postponed. As however, it has been considered desirable to have some part at least in the hands of the Members, your Committee have required its appearance in its present limited form, rather than consent to the publication being longer delayed. Your Committee are happy to say no inconvenience in binding up the Volume will thence arise; as by the arrangement now adopted the paging will be continuous from the commencement of the volume to its termination, whatever may be the number of parts of which it is composed, or the times of their publication."

The Treasurer read the following statement:—

TREASURER'S STATEMENT.

The accounts for the last year are closed, and shew the receipts to the 31st December, to be

|                                                             |       |    |   |
|-------------------------------------------------------------|-------|----|---|
| From the ex-Treasurer .....                                 | £32   | 3  | 1 |
| From Government on account of<br>the Great Exhibition ..... | 6     | 7  | 8 |
| Collections during the year .....                           | 108   | 16 | 0 |
|                                                             | <hr/> |    |   |
|                                                             | £147  | 6  | 9 |
| Expenditure during the year .....                           | 58    | 14 | 6 |
|                                                             | <hr/> |    |   |
| Balance on 31st December 1852...                            | £88   | 12 | 3 |

The funds in hand at the end of the year exceed the expenditure during the period the present Treasurer has been in office by £29. 17s. 9d.

The number of Members on the list on 1st January 1853 is seventy-nine, whose subscriptions are now due; and in addition arrears to the amount of upwards of £50 are yet expected to be collected. Should these arrears be all got in, and no loss experienced in the current year's collections, the amount available for expenditure during the year will be £221. 11s. 3d.

ROBERT DAWSON,

Colombo, 6th March, 1853.

Treasurer, R. A. S. C. B.

Two receipts enclosed, Nos. 100 and 182, being for the subscriptions of H. Mooyaart, Esq., and J. N. Mooyaart, Esq., are stated to have been paid to the Provincial Committee at Jaffna, amount £2. 12s. 6d.

R. D.

The Office-bearers and Committee, with the Patron and Vice Patron of the Society for the year, were then nominated and appointed as follows:—

*Patron.*

His Excellency the Governor of Ceylon.

*Vice-Patrons.*

The Hon. Sir Anthony Oliphant, C. B., Chief Justice,  
The Right Rev. the Bishop of Colombo.

*President.*

The Hon. C. J. MacCarthy, Esq.

*Vice-President.*

The Rev. D. J. Gogerly.

*Secretary.*

J. Lamprey, M. B., 15th Regiment.

*Treasurer.*

Robert Dawson, Esq.

*Librarian.*

The Hon. Mr. Justice Starke.

*Joint Curators of the Museum, and of the Scientific Instruments  
belonging to the Society.*

Major Lushington, C. B., 37th Regiment.

J. C. Hoffman, M. D., Staff Assistant Surgeon.

## COMMITTEE.

The Hon. H. C. Selby, Esq.

The Rev. Dr. Kessen.

The Hon. J. Caulfeild, Esq.

Lieut. Schaw, R. E.

Captain Steuart,

Dr. J. B. Misso.

The following special Committees were then appointed.

## ORIENTAL COMMITTEE.

James De Alwis, Esq., *Convener.*

M. Coomarasamy, Esq.; Revd. J. G. Kats; Rev. G. R. Muttukistna; and L. De Zoysa, Esq.; with power to add to their number.

JAFFNA COMMITTEE.

J. N. Mooyart, Esq. *Chairman.*

E. S. Whitehouse, Esq., and H. F. Muttukistna, Esq., with power to add to their number; being always ordinary Members of the Society.

## THE WOODS COMMITTEE.

The Rev. C. Alwis, and Dr. Misso ; with power to add to their number.

The following Gentlemen were then proposed and elected members of the Society :—

Major Cole, 15th Regiment. } Proposed by R. Dawson, Esq.

Percy Alvin, Esq. . } *Seconded by Dr. Lamprey.*

Lieut. Philpotts. . . { Proposed by Dr. Lamprey.  
Seconded by R. Dawson, Esq.

Mr. Dawson drew the attention of the Meeting to the Society's Journal for the past year, which was laid on the Table, and stated that its curtailed form was owing to the proofs of some of the papers which were intended for publication not being as yet sufficiently corrected for the Press, and that consequently, a considerable portion remained in the hands of the Printer. Under existing circumstances, it was deemed better to issue the Journal in its present incomplete condition rather than entail further delay. The remainder, as soon as it will be printed off, may either be issued immediately or kept back and bound up in the forthcoming number; in either case the numbering of the pages will be continuous with the portion now laid on the table. This delay was more to be regretted, as it prevents the immediate appearance of several interesting papers, which, together with those of Mr. Gogerly and Mr. Brodie, would have made the volume of 1853, a very interesting and valuable number. Mr. Dawson concluded by stating that in conformity with the

Rules of the Society, which entitled ordinary members to two copies of the Society's Journal, the Members present would receive each two copies of the part now published and laid on the Table.

It was then proposed by Dr. Lamprey and seconded by Mr. Comarasamy, That a vote of special thanks be given to Mr. Ondaatje for his extremely interesting contributions to the Society, and that he be requested to give an account of the mode of preparing the several products he has contributed, and also what medical or other properties those products are commonly supposed to be possessed of, by the Singhalese; and further, that he be requested to continue to devote himself to researches in the Vegetable Products of Ceylon.

It was also proposed by Dr. Lamprey and seconded by Mr. Dawson, That examples of as many of the Vegetable products of Ceylon as can be procurable, and which are not generally known, be sent to some eminent Professors of Materia Medica and Chemistry in Europe, for their analysis and examination, as the best means of ascertaining and making known their utility.

Dr. Lamprey then stated, that before separating he wished to say a few words to the Meeting about a move that has already been in contemplation, and which has been alluded to in the able Report just read, namely, the establishing the Society in some building more appropriate to their Meetings, Museum and Library, than the limited space they now occupy; but being unprepared with a specific plan and estimate of a building, which he, Dr. Lamprey, was in hopes to have laid before the present Meeting, he must only defer it to another occasion; in the mean time, the matter would receive every assistance from Lieut. Schaw of the Royal Engineers, and he doubted not but that for a few hundred pounds very convenient and suitable rooms could be erected. It was considered that this sum could be raised by uniting the funds of

the Athenæum with those of the Asiatic Society, and completing the amount by a public subscription. The advantages of the project would be highly beneficial to both Societies, and the public would benefit largely likewise; it being also in contemplation to erect a Chemical laboratory, to be attached to the building, the utility of which would soon be made manifest either in furnishing a means for carefully analysing such valuable products as those contributed by Mr. Ondaantje to the Society, or as forming a basis for establishing a School of Chemistry and Natural Philosophy for general instruction. In conclusion, he thought the better plan of bringing the subject before the Society would be, by reading a paper on it at some Evening meeting.

The business of the Meeting having ended, a vote of thanks was given to the Chairman, and the Meeting separated.

J. LAMPREY, M.B.

*Hony. Secy.*

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COMMITTEE MEETING, HELD 4TH APRIL, 1853.

Present:—The Hon'ble Justice STARKE, in the Chair; Dr. Misso, Dr. Lamprey.

The first subject taken into consideration was the propriety of purchasing a Waterlow's Lithographic Press, now in the possession of Messrs. Wilson Ritchie and Co., and offered for sale at its original cost, £14. 16s., to be used in Lithographing the numerous Rock inscriptions and drawings which have accumulated among the Society's papers; also for describing the Inscriptions on a collection of interesting Coins in the Society's Museum, and for illustrating the Journal generally, for which it appears to be admirably adapted.

The Committee having duly considered the subject, deemed it desirable, on account of the great expense attending the printing of illustrations in England, and the want of such a

press in the Government or any other Printing establishment in Ceylon, that the Society should be in possession of a means of publishing in their Journal the illustrations already in their possession, as well as those that may be contributed hereafter, agree in the recommendation, and instruct the Secretary to purchase the Lithographic Press on the most advantageous terms, and authorize the Treasurer to discharge the amount accordingly.

It being stated that some of the proceedings of the past Meetings of the Society, now in the course of publication, were illustrated with wood-cuts when published in a Newspaper of the Colony, it was desirable to know whether it would be better to procure the wood-cuts from the Editor on terms, or to engrave them anew, the expense of which might be greater than the sum asked for.

It was agreed to leave the matter in the hands of Mr. Skeen, and authorize the Treasurer to pay the amount specified.

The Secretary having informed the Meeting of the recent receipt of a letter marked A. of the proceedings, together with some books from the Smithsonian Institution of America, it was agreed to send a complete series of the Society's Journal in return, to be accompanied with a letter of thanks expressing the deep interest that the Society entertains for the Institution, and the anxious wish it has to keep up a correspondence by an interchange of publications.

It was agreed to send a series of the Journal to the Editor of the Journal of the Eastern Archipelago, together with a letter of thanks for his donations of the Numbers to the Society.

Also, that copies of the Journal should be sent to the Royal Asiatic Society.

The Secretary having read Mr. Mooyaart's letter, marked B. of the proceedings, he was requested, in acknowledging its receipt, to draw his attention to the appointment of the Local Committees and particularly to the relative paragraph in the

Report of the Annual Meeting. And as regards the other matters contained in the letter, they were to be reserved for consideration at another Meeting.

Mr. Ondaatje's letter, marked C. of the proceedings, having been read and laid on the table, the Secretary was requested to acknowledge the same in a letter of thanks.

The proceedings of the Meeting here terminated.

J. LAMPREY,
Hony. Secy.

A.

*Smithsonian Institution, Washington, United States of America,
June 21st, 1852.*

SIR,

On behalf of the Smithsonian Institution, we this day forward, through the agent specified, one package, containing the works mentioned in the accompanying list, intended as presents from the Smithsonian Institution, and the other parties indicated, to the Asiatic Society of Ceylon.

It is earnestly requested that an acknowledgment be made through our agent, immediately on the arrival of these works, as no further transmission will be made on the part of the Institution until this is received. A special acknowledgment is also desired for each of the other parties. The Institution, when desired, will act as the medium of communication between the Learned Bodies of Europe and America, as heretofore, and supply such especial desiderata as may be at its disposal.

In return, the Smithsonian Institution desires to receive as full series as possible of all publications of Learned Societies, of Universities, Libraries, and Foreign Governments, Periodicals, and indeed, anything else of a Scientific or Literary nature.

Very respectfully, your obedient servant,

JOSEPH HENRY,
Secretary of the Smithsonian Institution.

List of Books.

Smithsonian Contributions to Knowledge, Vol. III., 4to., (1852,) pp. 564, and 35 plates.

Smithsonian Contributions to Knowledge, Vol. IV., 4to., 1852, pp. 416.

Fifth Annual Report of the Board of Regents of the Smithsonian Institution, 8vo., pp. (1851.)

- Smithsonian Report on Recent Improvements in the Chemical Arts.
 By Booth and Morfit, 8vo., pp. 216.
 Directions for Collecting Specimens of Natural History, 8vo., pp. 24.
 Registry of Periodical Phenomena.
 List of Works published by the Smithsonian Institution.
 List of Foreign Institutions with which the Smithsonian Institution is
 in Correspondence.
 Abstract of the 7th Census of the United States.

B.

Kaigalle, March 26th, 1853.

DEAR SIR,

I regret having been prevented from attending the General Meeting of the Asiatic Society on the 5th instant, as I might have been able to communicate more satisfactory information respecting the Provincial Committee at Jaffna, than seems to have been afforded to the Meeting. If my correspondence, as Chairman of that Committee, with the lamented Captain Neill, and subsequently with his successor, be forthcoming, you will be acquainted with all the proceedings of that Committee. Since Captain Neill's demise, the Jaffna Committee was kept perfectly in the dark respecting the views of the Auxiliary Society at Colombo. Had it been made acquainted with the sentiments of the latter Institution, the Jaffna Committee might have chalked out for itself an eligible sphere of usefulness. On reference to the last communication I addressed to Mr. Layard in the month of June, you will perceive, that on my quitting that station, Mr. Byrne undertook the charge of President, to which nomination I could not obtain the concurrence of the Committee, as no Meeting took place, consequent on the non-attendance of the requisite number of Members to form a quorum. These circumstances, I notice, are omitted in the proceedings published in the Observer of the 24th.

With a degree of encouragement and co-operation on the part of the Colombo Committee, I am disposed to think that of Jaffna would prove a useful Auxiliary, in exploring valuable materials of information relative to the Northern part of the Island. The disposal by the Local Committee of the funds raised on the spot, seems desirable, as certain disbursements are unavoidable, where a working body is trying to be useful. It is upon this principle, that the Parent Society in London recognizes the exercise of this privilege by its Auxiliaries. In the anticipation that the Colombo Committee would concur in a similar arrangement, that of Jaffna has incurred some expense in the preparation for forming a Museum. This proceeding seems not to meet the approval of the Colombo Institution, inasmuch as it is not disposed to sanction the expenditure at the out-station of the subscriptions obtained on the spot. To restrict a working Committee in the disposal of the funds at its disposal

from local contributions, without the previous sanction of the General Committee, seems calculated to cramp the operations of both Institutions. In what light this restriction may be viewed at Jaffna remains to be seen. A more liberal course is likely to promote far better the objects of the Asiatic Society, as joint action in any locality is obviously preferable to individual exertions.

I shall feel obliged by your favouring me at your convenience with a copy of the Parts of the Number of the Journal already published. Were a suitable number of copies of the Proceedings, and of other papers which are intended for publication, to be at once struck off and circulated amongst the Members, they would be more interested in the General Proceedings of the Society. Were these publications to be conducted on an uniform plan and the pages numbered, the sheets might easily be bound at the expense of each subscriber, when the volume is completed. By this expedient, the Members generally would be *en courant* with the proceedings of the Colombo Committee.

The late Capt. Neill favoured me with a printed copy containing 90 very interesting and important queries. Such papers, circulated both in English and the Native languages amongst persons who might be disposed to furnish information on such topics, would elicit communications which might prove valuable.

I remain, &c.

J. N. MOOYAART.

C. *Badulla, 31st March, 1853.*

SIR,

I beg to forward herewith, (under cover to the Hon'ble the Colonial Secretary), a few specimens of Vegetable products enumerated in the annexed Memorandum, and to acquaint you that I will have much pleasure in sending you a copy of my pamphlet, wherein the mode of preparation and uses of the various articles already presented to your Society are fully described.

Allow me to draw your attention to the "Kino," which is the produce of the *Pterocarpus Marsupium*, Roxb., and indigenous to the Patnas around Badulla. It grows luxuriantly on the Lemon grass hills, and yields the gum in great abundance. It is now believed to be the species which produces the genuine Gum Kino of commerce.

I hope shortly to be able to submit to you a full account of this tree, and the mode of extracting the gum, (*gum-resin*).

I remain, &c.

W. C. ONDAATJE.

Memorandum referred to.

1. Seeds of the Ceylon Sack tree.
2. Ceylon Madder Lake.—Specimens dyed with the Ceylon Madder.
3. Gum Kino, extracted from the *Pterocarpus Marsupium*, Roxb., growing on the hills (Patnas) around Badulla.
4. Ceylon Gamboge, extracted from the *Hebradendum gambogioides*, at Badulla.
5. Resin from the *Vateria indica*, from Bintenne.
6. Fibre from the *Hibiscus Cannabinus*, collected at Putlam.
7. Fibre from the *Abelmoschus Moschatus*, collected at Badulla.

Badulla, 4th April, 1853.

SIR,

With reference to a quantity of Gum Kino forwarded to you on the 31st March last, I beg leave to state that the tree which produces it is the *Pterocarpus Marsupium*, Roxb., figured in his *Coromandel Plants*, II. t. 116, Fl. Ind. III. p. 234. It is indigenous to Ceylon also, being found on the Patnas around Badulla and the neighbouring country. By making longitudinal incisions in the bark, I have succeeded in collecting a large quantity of the gum-resin from several trees here. The substance thus obtained, as you will observe, is of a dark ruby colour, brittle, and highly astringent. From the trials of it in the way of clinical application, I consider the Ceylon Kino to be equal to that of the shops in its therapeutic effects; but the Singhalese neither extract nor use this valuable substance. The tree grows on the most sterile hills, covered with Lemon grass, and may be propagated by "cuttings" without much difficulty.

I need not tell you that it is now believed by the most eminent Pharmacologists, that this species produces the *genuine Gum Kino* of commerce.

I must not omit to add, that this tree was not known to Moon under its correct name of *Pterocarpus Marsupium*, Roxb., as he has inserted it in his Catalogue under a wrong species (*P. bilobus*) without any reference, although this Botanist was possessed of Roxburgh's splendid drawings of the *Coromandel Plants*. It also appears, from the absence of those marks which serve to indicate the economic properties of plants, that Moon was not aware that the tree was capable of yielding so valuable a product.

I remain, &c.,

Dr. Lamprey,

W. C. ONDAATJE.

Hon. Secy., Ceylon Asiatic Society.

COMMITTEE MEETING, HELD APRIL 30TH, 1853.

Present:—Hon'ble Justice Starke, the Rev. Dr. Kessen, Dr. Lamprey.

The Secretary laid before the Meeting Mr. Ondaatje's contributions and letters, marked A. B. C. D. E.

Read answer to letter (marked F), addressed to Messrs. Thacker Spink & Co., Publishers of Calcutta, in reply to the Secretary's letter of the 12th March 1853.

The Committee recommend that some of the printed Catalogues of prices of Books be referred to before deciding on purchasing the book.

A manuscript copy of the Woods of Ceylon, contributed by Adrian Mendis, was referred to the Woods Committee for their report.

The date of the Quarterly Meeting was fixed to be held on the 20th May, 1853.

A.

Badulla, 13th April, 1853.

DEAR SIR,

By this day's Tappal I send you another quantity of Vegetable fibre, viz :

1. Fibre from the *Crotalaria juncea*, collected at Chilaw.
2. Do. *Calotropis gigantea*, collected at Putlam.
3. Do. *Sanseiviera Guineensis*, collected at Putlam.

I have directed a copy of my Pamphlet to be sent to you, in which you will find these fibres noticed.

I am, &c.,

W. C. ONDAATJE.

B.

List of Vegetable Products presented to the Ceylon Asiatic Society, from 31st March to 13th April, 1853.

GUM-RESIN.

- 1.—Kino extracted from the *Pterocarpus Marsupium*, Roxb., at Badulla. (Vide letter dated 31st March, 1853.)

- 2.—Resin from the *Vateria Indica* (Indian Copal.)
- 3.—Ceylon Gamboge, extracted from the *Hebradendron gambogioides*, Graham, at Badulla.

DYES.

- 1.—Dyed specimens of Ceylon Madder (*Rubia cordifolia*.)
- 2.—Ceylon Madder Lake.

VEGETABLE FIBRE.

- 1.—From the *Hibiscus cannabinus*, collected at Putlam.
- 2.— „ *Abelmoschus moschatus*, collected at Badulla.
- 3.— „ *Calotropis gigantea*, collected at Putlam.
- 4.— „ *Crotalaria juncea*, collected at Chilaw.
- 5.— „ *Sanseivera guineensis*, collected at Putlam.

Badulla 16th April, 1853.

W. C. ONDAATJE.

C.

Badulla, 16th April, 1853.

SIR,

It affords me great satisfaction indeed, to find from your letter of the 12th March last, that my efforts to draw public attention to the Vegetable products of my native country, have met with so much encouragement at the hands of your Society. Allow me now to offer them my best acknowledgments for the notice they have been pleased to take of my labours in the field of Botany, and to assure them, that this will prove no small stimulus to me to continue to devote myself to my favorite study.

As the mode of preparing the Vegetable Products which I have presented to the Society, and their uses are described in the accompanying little pamphlet, I take this opportunity of requesting the Society's kind acceptance of the same.

I remain, &c.,

W. C. ONDAATJE.

D.—List of Vegetable Products of Ceylon presented to the Ceylon Asiatic Society.

Botanical Names.	Singhalese Names.	Tamil Names.	Locality.
GUM-RESIN.			
<i>Pterocarpus Marsupium</i> , (Kino) ...	හම්බාළු ...	உதிர வெங்கை மா ம	Badulla District.
<i>Vateria Indica</i> (Indian Copal) ...	கடல்... ..	பின்னை மா ம	Wedagama.
<i>Hebradendron gambogioides</i> (Ceylon Gamboge)	கொக்கவிச ...	—	Badulla.
DYES.			
<i>Rubia cordifolia</i> (Madder) ...	බොබදි කවැල් ...	பூந்திட்டு ...	Badulla.
<i>Morinda umbellata</i> ...	—	துளுமா ம	Wellasse.
VEGETABLE FIBRE.			
<i>Hibiscus cannabinus</i> ...	අ.මුල් පලා ...	புளிச்செவ்வரை ...	Four & Seven Korles.
<i>Abelmoschus moschatus</i> (Musk Mallow)	කපු කොළාස්ස ...	—	Badulla District.
<i>Calotropis gigantea</i> ...	විතස ...	எருகுரு ...	North & West Prov.
<i>Crotalaria juncea</i> (Hemp) ...	හසා ...	சதல ...	Galle, Chilaw, Topu
<i>Sanseiviera Zeylanica</i> and <i>Guineensis</i>	ශීසරු ...	மருள ...	Putlam District.
<i>Antiaris saccidora</i> (Ceylon Sack Tree)	රිවිහෙ ...	—	Badulla District.
OILS.			
<i>Cinnamon Suet</i> ...	කුරුඳු තෙල් ...	—	Badulla District.
<i>Sethia indica</i> —(Wood oil) ...	දුම්මිලු තෙල් ...	செமமனத்தி ...	Putlam District.
<i>Schleicheria trijuga</i> (Ceylon Oak Oil)	කොජා තෙල් —	கள்ளாமம் ...	Bintenne & Wellasse.
<i>Litsea sebifera</i> ...	කඩුරු වුලා තෙල් ...	—	Badulla District.
Ceylon Gamboge Oil... ..	කොකවිස තෙල් ...	—	Badulla District.

W. C. ONDAATJE.

Badulla, 22d April, 1853.

Badulla, 23d April, 1853.

DEAR SIR,

I beg to acknowledge the receipt of your favor of the 16th instant, acquainting me with the safe arrival of all my contributions lately forwarded through you to the Society, and which, I am glad to find, have received so much attention from you and the other members.

With regard to the Kino, I request you will be good enough to inform Mr. Dawson, that I have already taken steps to collect 1 cwt. of the Gum, and as soon as I have collected it, I shall have much pleasure in sending the same to that Gentleman for transmission to the English Market. I keep an accurate account of the expenses incurred in collecting it. I am now engaged in collecting full information to enable me to draw up an account of this useful Tree, and which I shall submit for the consideration of the Society.

The enclosed List will afford the information you desire respecting fibres, &c.

Herewith I send you a piece of the Wood and Root of the *Morinda umbellata*, which yields a red-dye; produced by adding lime-water, or any other alkalies to an infusion of the root.

I beg your acceptance of a copy of my Pamphlet on the Vegetable Products of Ceylon.

I remain, &c.,

W. ONDAATJE.

St. Andrew's Library,
Calcutta, 7th April, 1853.

SIR,

In reply to your favour of the 12th ultimo, we beg to say that we have a copy of the first edition of Wilson's Sanscrit Dictionary well bound in half russia, at Rs-50. This is, we believe, the only copy of the Dictionary to be had in Calcutta. The work is very scarce.

We remain, &c.,

J. LAMPREY, Esq.,

THACKER SPINK & CO.

Hon. Secy, R. A. S., C.B.

Colombo.

QUARTERLY MEETING, HELD 20TH MAY, 1853.

Present:—The Rev. D. J. GOGERLY, in the Chair.

The Hon'ble Justice Starke, Messrs. Skeen, De Zoysa, Dr. Misso, and Dr. Lamprey.

The second part of the Journal for 1853 was laid on the table, and the Meeting was informed by Mr. Skeen that in a few days the binding would be completed, when it would be ready for distribution.

Mr. Ondaatje's contributions and letters marked A, B, C, were laid on the table and read.

Dr. Kelaart's communication on some new Reptiles was read and ordered to be printed in this Journal.

Mr. Casie Chitty's paper on the Rhodyas and vocabulary of their dialect was read and ordered to be printed.

Mr. Gogerly read his paper on Budhism, in continuation of a former paper; ordered to be printed.

Mr. Justice Starke, reports that the book-cases are completed, and that the Catalogue of Books which were presented and given to the Society, does not correspond with the books actually in possession of the Society.

Samples of Lithography done by the Society's Press were next laid on the table.

A vote of thanks was given to the Chairman, and the meeting separated.

A.

Badulla, 10th May 1853.

DEAR SIR,

Herewith I send you a coil of braid made with the black fibre from the leaf-stalks of the Jaggery Palm (*Caryota urens*.)

The "Rodyahs," or outcastes, manufacture the fibre into rope which is of great strength.

Is this article the same as the "*Vegetable bristles*" largely imported into England for making brooms?

I also send you a small quantity of woolly material, found at the base of the leaves, and which the Singhalese use as tinder. Professor Lindley informs us, that a similar substance yielded by another species of Palm,

(*Saguerus saccharifer*) is used for making brooms, eables, ropes, and also as tinder, and much employed in caulking ships (*Vegetable Kingdom*.)

I remain &c.,

W. C. ONDAATJE.

B.

Badulla, 14th May, 1853.

DEAR SIR,

I send you a small quantity of Madder Powder in the accompanying parcel.

Professor Royle says, in his *Materia Medica*, that the Kino produced from the *Pterocarpus Marsupium* is previously imported to *Bombay* from the Malabar Coast and from thence exported to England. Perhaps by writing to some Mercantile house at *Bombay* we may be informed at what rate the article is sold in England.

If you require to send a sample of the Ceylon kino I shall be able to give you about 2lbs. immediately.

I remain, &c.,

W. C. ONDAATJE.

C.

Badulla, 17th May 1853.

DEAR SIR,

I send you herewith a piece of rope made with the black fibre from the base of the Kittul leaf. I hope to be able to send you a large one, about 10 fathoms long, in a couple of weeks.

The Singhalese use the rope for tying Elephants, &c.

Mr. Ward informs me that a substance, resembling the woolly material of the Kittul already sent to you, is commonly used in China as tinder under the name of "Punk." I think it is the same material, but from a different species of Palm.

I remain, &c.,

W. C. ONDAATJE.

Contributions to the Library since last General Meeting.

Directions for collecting Specimens of Natural History.

Smithsonian Contributions to Knowledge; Vol. III. and IV.

Fifth Annual Report of the Smithsonian Institution.

Smithsonian Report on the Chemical Arts, from the Smithsonian Institution.

Journal of the Indian Archipelago, for Nov. 1852, from the Editor.

Annals and Magazine of Natural History, Nos. 61, 62 and 63.

Observations on the Vegetable Products of Ceylon, from Mr. W. C. Ondaatje.

Journal of the Asiatic Society: Vol. I. II.

Proceedings of the Numismatic Society of London for 1836, 1837, 1838.

Gullimore's Oriental Cylinders, No. 2.

Catalogue of Oriental Manuscripts at Hartwell House, from Mr. Justice Starke.

EVENING MEETING, HELD 3RD DECEMBER, 1853.

An Evening Meeting of this Society took place at Mr. Justice Starke's house, on Saturday 3d December, 1853.

The following books, lately received, were laid on the Table.

Journal of the Royal Asiatic Society, Vol. 15, part 1.

Journal of the Asiatic Society of Bengal, No. 7 of 1852, and Nos. 1 and 2 of 1853.

Bibliotheca Indica, from No. 45 to No. 49, both inclusive.

Journal of the Indian Archipelago, No. 1 of vol. 7, from the Editor.

Annals and Magazine of Natural History, Nos. 67, 68, 69 and 70.

Typography, or Letter Press Printing in the 15th Century, by W. Skeen, Esq., presented by the author.

Meteorological Observations, completing the series up to the month of September, were received from D. Sanders, Esq., of the Batticotta Missionary Institution, and from Commander Higgs, Master Attendant of Trincomalie, also notices of the Comet seen in August last.

Trincomalie, 25th August, 1853.

We saw a Comet here on the evening of the 23rd instant, a little after 7. It was low down in the w. n. w. quarter. Through a glass of small power the nucleus and tail were unusually bright; a line from *alpha* Cygni through *zeta* Ursa Majoris led to it. It was very clearly seen last night, I merely caught a glimpse of it, and it bids fair to be overcast to-night. So soon as I am able to get a few angles to fix it approximately, I will send you the declination and right ascension.

Yours, &c.,

J. HIGGS.

14th September, 1853.

The weather was so cloudy that I was unable to fix the Comet. The last night it was seen was on the 1st September at 7-20 P.M., when it had the appearance of a circular mist. I saw it twice for a few seconds with my glass (about 80 power) on the nights of the 27th and 30th August; the nucleus was astonishingly bright, as large as Jupiter. The outside lines of the tail also were extremely bright. To the naked eye the tail had the appearance of two bright lines with a dark interval. It had a rapid motion towards the sun; the angle between *epsilon* Ursa Majoris and the Comet having increased between the 26th of August and 1st September, $19^{\circ} 45'$

Yours, &c.,

JOSEPH HIGGS.

This Comet appears to be the same as that observed in Europe in August last, and described in the Illustrated News by Mr. Hind and others.

The following interesting contributions presented to the Society by W. C. Ondaatje, Esq. of Badulla, were next laid before the Meeting.

1. 2lbs. of *Gum Kino*, the produce of the *Pterocarpus Marsupium*, Roxb., which grows abundantly at Badulla and its neighbourhood.

With reference to this important substance, the Secretary remarked, that in appearance and in properties it resembled the Kino of commerce which is so largely used in Medicine and the Arts, and would no doubt be as readily purchased in the markets of Europe as that exported from India, if it could be produced in any quantity; up to the present date only 9lbs. have been sent to the Society, all which has been forwarded to Messrs. Dawson & Co. for transmission to England to ascertain its market value. The reason why the quantity is so small is explained in the following extract from Mr. Ondaatje's letter of the 25th November, 1853.

Regarding the Gum Kino, I regret to say that I have hitherto been baffled in my attempts to secure the services of a native Singhalese, who would undertake to collect a cwt. of the Gum. The people are very averse to the performance of any work which is novel to them in character, and which requires any degree of energetic perseverance, or the real object of which they do not quite comprehend.

Under these circumstances, I would suggest to you to apply to Government to instruct the Government Agent to direct each Headman to collect quantities of the Gum from the trees in the villages under his charge. If the fluid gum is sent to me I will have it properly dried and sent to the Society. The trees are just now in blossom; and as at this time the gum flows in greater abundance, it would be a pity to let this year pass over without making an effort to collect at least two cwts.

I will send all the Gum I have hitherto collected, which is only 9 lbs.

Yours, &c.,

W. C. ONDAATJE.

Mr. Buller considered the best means of forwarding Mr. Ondaatje's views, would be to communicate the wishes of the Society, through him, to the Assistant Government Agent at Badulla; in which the Meeting gladly acquiesced, and requested the Secretary to supply Mr. Buller with any information on the subject he may require.

2. A sample of *Gum* produced by the Satinwood tree; in appearance it resembles Gum Arabic.

3. A sample of *Gum* produced by the Ebony tree. It is in small rounded nodules, partially transparent, when not coloured black with the same colouring matter that gives the wood its chief characteristic; its taste is insipid.

4. A sample of *Gum* from the *Terminalia alata*. In appearance it resembles dark coloured Gum Arabic, but it appears to be a harder and more tenacious Gum than the latter; its taste is also insipid.

5. *Black Resin*, the produce of a tree growing in the barren soil of Badulla, *Semecarpus abovatum*, Moon, the *Kalu Badulla gaha* of the Singhalese. It is of a pure black colour resembling black sealing wax, of very light specific gravity and tasteless. It is soluble in turpentine.

6. A black substance, which Mr. Ondaatje describes in his letter of the 29th November, 1853.

Badulla, 29th November, 1853.

Herewith I enclose a few insects, and a black substance deposited by them on the *Gyrocarpus Jacquini*,—and shall be glad of any further information you can give me regarding them. The Singhalese call the substance "Kadde pas," and use it as an external application in cutaneous affections of the legs.

Your's, &c.,

W. C. ONDAATJE.

The Secretary regretted that he could give no further information regarding this substance than that contained in Mr. Ondaatje's letter, not having had time to make a minute examination of the insects, which do not appear to be Aphides, but rather closely resemble the Ichneumonidæ; at the next Evening Meeting the results of a close examination will be detailed.

7. *Lac*. The Secretary stated, that the sample before the meeting was the produce of the *Chermes Lacca*, an insect which produces two very valuable articles of commerce, namely, Shellac and Lac dye, both which substances are largely consumed in the Arts and Manufactures in Europe; it is extensively exported from India, but as it is described as being abundant in Badulla, there is every prospect of its becoming a valuable article of export from Ceylon also.

The Lac belongs to the same class and order of Insects as the Cochineal, and whilst the latter only produces crimson dye, the former produces the substance called Shellac as well. On macerating a portion of the sample before the Society in hot water, the crimson colour was seen to be imparted to the water, whilst the shellac floated on the surface, and became quite soft and pliant. The colouring matter is altogether derived from the bodies of the insects which reside in the cellular structure of the substance, as it is found on the tree; it is this cellular substance, which appears to be useful in protecting the insect from ants and other enemies, that yields the Shellac.

It would be well worth while to draw attention to the cultivation of the Lac, instead of the Cochineal insect; as the plants productive of the former—(the *Gyrocarpus Jacquini* is one)—as well as the insect itself, are already abundant in the jungle, whilst the Cochineal plant and insect are still strangers to the soil and climate of Ceylon.

8. *Kittul fibres*. A black horse hair like substance, produced from the Jaggery Palm, used by the natives for making ropes, of which specimens were laid on the table, also a brush made with the fibre, for which purpose it appears to be as well adapted as bristles, being quite as strong and almost as elastic. If procurable in large quantities, it might prove a useful product.

2. *Sulphur stone*, described by Mr. Ondaatje as follows:

I have now the pleasure of submitting the accompanying specimen of Sulphur stone, and shall be glad to be favoured with your opinion.

Sulphur exists in Bintenne in combination with iron pyrites in great abundance.

The specimen, submitted to analysis, yielded but a small per centage of Sulphur; it also contained Arsenic in greater quantity than Sulphur; the other constituents being Graphite in isolated granules imbedded in Quartz and Mica.

10. *Steel*. This specimen appeared tolerably pure, of a fine compact grain, but exceedingly brittle, probably owing to its not being annealed properly. The mode of preparation is thus described by Mr. Ondaatje.

In forwarding to you the accompanying specimen of Kandian Steel, made at Kandapalle, in the District of Badulla, I shall briefly remark on the mode of manufacturing it as adopted by the Singhalese.

It consists in introducing a small bar of good Iron into a clay mould of a tubular form, which they call "Cōvey," with pieces of the dried wood of the *Cassia auriculata*, the Ranawara of the Singhalese. The open end of the tube is afterwards closed with clay and it is placed in a charcoal fire for two hours, by which process Carbon is supplied to the Iron which is thus converted into Steel.

The proportions for making steel of the best quality are as follows;—7 parts of iron to 3 of the dried wood. They also use the wood of the *Toddalia aculeata*, the Kudu meris of the Singhalese, in which case the proportions are 3 of iron to 1 of wood. This wood however produces an inferior Steel; but by increasing the iron to 5 parts, a better kind may be obtained. This kind of Steel is not generally manufactured, as it is brittle and not malleable.

The foregoing description of the Kandyan method of making Steel, bears a very close analogy with that practised by the natives of the South of India, as described in a paper by Dr. Voysey, and published in the Transactions of the Asiatic Society of Bengal of 1832, page 245.

11. *Kandyan paper*, with the following account of its manufacture.

I have much pleasure in addressing the Society again. It is on a subject, which, I conceive, is fraught with much local interest, and to which I am not aware that public attention has before been directed. I refer to the manufacture of Paper by the Kandians, during the period the country was under Native rule.

It seems probable, from the intercourse that once subsisted between the ancient inhabitants of the Island and the Chinese, especially in connection with the Cinnamon trade, that the Singhalese derived their know-

ledge of manufacturing Paper from the latter, who, it is well known, have made it from the liber, or inner bark of a species of *Morus*, cotton and bamboo, from time immemorial. Whilst botanizing in the jungles of Badulla, a species of Fig was pointed out to me by an old Kandian doctor, which he said, had been formerly used to make paper from. He knew nothing himself, however, of the process by which this was effected. On further inquiry I ascertained from another aged Kandian, that the plant to which my notice had been first called, was of different species from that which had been used by his countrymen for making paper.

This individual himself had never made any, but understood the method that had been resorted to for the purpose, as his ancestors had to supply the Stores of the Kings of Kandy with Paper, being that branch of the general service that had been imposed on them,—a service better known by the name of “Rajekarie,” compulsory labour.

The Paper thus manufactured by them was used not for the purpose of writing upon, but for making Cartridges for gunpowder. The people on whom this duty devolved were the natives of Beddegama in the District of Badulla, who received grants of land in consideration of the service they rendered to the State.

The tree from which the Kaudians made their Paper is a species of the *Ficus*, called in Singhalese Nūnitōl, which is found in great abundance every where in this country.

The following is the Kandian mode of making Paper :—

From the tender branches the whole of the bark is stripped, and afterwards the inner bark (liber) which is of great tenacity, is separated from the outer skin with the hand, and is put into a large earthen pot, and boiled with the ashes of the *Erythrina indica* (Erabodee) until it becomes soft, when it is removed and beaten with a wooden mallet on a stone, till it assumes the consistency of dough. It is next put into water, and churned with the hand, which process soon converts it to a fine homogeneous emulsion. This is poured into a frame having a cloth bottom floating in water. It is again agitated with the hand until the whole of it becomes uniformly spread over the cloth, on which it settles down smoothly.

The frame being then withdrawn from the water, which is allowed to drain off gradually, is next put to dry in the sun. The Paper thus formed is easily removed from the cloth bottom, and becomes soon fit for use. It is very tough, and remarkable for its tenacity, and does not appear to be liable to the ravages of insects, as may be seen from the enclosed specimen of Kandian paper, marked No. 1, which was made about 50 years ago, and which is still in excellent preservation, although

no very great care seems to have been taken of it. The specimens marked No. 2 are those of my making, which I need not say admit of considerable improvement. It is only adapted for writing upon with Indian Ink.

I also forward herewith paper made with fibres of the wild Marsh mallow, *Abelmoschus moschatus*, marked No. 3; and with the inner bark of the Ceylon Sack tree, marked No. 4.

Your's, &c.,

W. C. ONDAATJE.

Mr. Skeen stated that he thought No. 4 might make a paper very similar to that used for the purpose of proof engravings, its texture having a beautiful fine and glossy appearance.

Mr. Justice Starke remarked, that it would be interesting in an historical as well as scientific point of view, to trace the source from whence the Kandyans derived their knowledge of the manufacture; and wished to know if any one present could give some information on the subject. The Secretary referred to a paper in the Transactions of the Asiatic Society of Bengal of 1832, by B. H. Hodgson, Esq., Acting Resident at Nepaul, describing the manufacture of the Nepaulese paper, which appears to be also made from the liber of plants, by the same process detailed by Mr. Ondaatje. The author of that paper was inclined to think also that the Chinese supplied the Nepaulese with their knowledge of the manufacture, as appears from the following extract. "I cannot learn by whom or when the valuable properties of the paper plant were discovered; but the Nepaulese say that any of their books now existent, which is made of Palmira leaves, may be safely pronounced, on that account, to be 500 years old: whence we may perhaps infer that the paper manufacture was founded about that time. I conjecture that the art of paper making was got by the Cis-Himalayan Bhoteahs, via Shassa from China. A paper of the very same sort being manufactured at Shassa; and most of the useful arts of these regions having flowed upon them, through Tibet, from China; and not from Hindústan."

It is well known that the Chinese manufacture paper largely from plants up to the present day, and on comparing some of it with that presented by Mr. Ondaatje, there is so close a resemblance, that Mr. Ondaatje's suggestion as regards the sources of the Kandyan paper manufacture, seems to have some foundation.

The Members expressed themselves as being much interested in Mr. Ondaatje's important contributions, which they hoped would obtain that attention they appeared to deserve.

J. LAMPREY, M.B.,
Hon. Secretary.

COMMITTEE MEETING, HELD 21ST DECEMBER, 1853.

A letter from Mr. Ondaatje was read. It was moved and agreed that the subject of his letter be referred to next General Meeting, and considering the expense Mr. Ondaatje must necessarily have incurred in collecting and preparing the several contributions he has made to the Society, the Committee recommend that the sum of £10 be voted to him at the next General Meeting.

A letter from Dr. Kelaart was read and laid on the table, stating, that he had been at great expense in publishing, and requesting that the Society would accept copies of his work in lieu of subscriptions due. It was then moved and agreed to, that two copies of his publication be received, in lieu of all past arrears of subscription due by him to the Society, and that a recommendation be made by the Committee at the next General Meeting, that he be made a Corresponding member of the Society.

Dr. Willisford's correspondence with reference to the Great Exhibition of 1851, read.

It appearing that the Reports were forwarded to him, the Secretary was requested to confer with him on the subject.

Dr. Misso, as a member of the Woods' Committee, reports progress, and is authorized to take any specimens of woods he may select for advantageous arrangement.

Resolved.—That with a view to promote a more general interest in the objects of the Society, and encourage a taste for the study of Natural History, the Society's Museum be open for public inspection during the Christmas holidays in every year, and at such other times and under such rules and regulations as the Committee shall from time to time deem fit.

J. LAMPREY, M.B.,
Hon'y. Secretary.

GENERAL MEETING, HELD 1ST FEBRUARY, 1854.

J. ARMITAGE, ESQ., in the Chair.

The following books received since the last Meeting were laid on the Table.

7 copies of Jury Reports of the Great Exhibition.

Journal of Natural History, Nos. 71 & 72.

The Secretary read the proceedings of the last General Meeting, and afterwards the following

Report.

The present meeting of the Asiatic Society is convened much earlier than was anticipated, in consequence of the unexpected removal of your Secretary to Kandy, and the departure of your Librarian on his return to England; thus leaving two important Offices of the Society vacant. It will therefore be a matter for this meeting to determine what steps are to be taken to supply the place of these Office bearers.

It will be satisfactory to know, that during the past year much important business has been transacted at the General, Committee, and Evening meetings of this Society, shewing a very satisfactory state of progress,—the proceedings of each meeting have been published from time to time, so that out-

station members and those not able to attend, have been made aware of the Transactions of the Society, which now constitute two very respectable volumes for the year 1853, besides leaving much matter for publication in 1854.

The funds also of the Society are in a very satisfactory state; at least when the out-standing subscriptions are collected there will be a large balance in favour of the Society, which it is hoped will go far towards raising a building fund to enable the Society to provide more ample accommodation for its rapidly increasing Library and Museum; also to afford accommodation for the Society's Meetings of much more suitable character than that which they now possess.

In thus alluding to the Library, we cannot let pass the opportunity for expressing the great obligations that are due to the Hon'ble Mr. Justice Starke, for the interest he took in the affairs of the Society generally, and particularly in this department, which was an object of his special care and attention. The arrangement and cataloguing of our books, which hitherto were for the most part in a dilapidated condition, and very much dispersed, had occupied him during the last year that he held the office of Librarian; and the result of his labours is, that a number of volumes have been collected from out-station members; the serials have been bound together; and we now find that the Society is in possession of a large number of well arranged and catalogued valuable books. Previous to his departure he furnished the following Report as to the present state of the Library, which I shall now read.

Report on the state of the Library.

In pursuance of the recommendation submitted in the Report of the General Meeting of the Society held on the 5th March last, a Catalogue of the Books has been made out.

This was done from all available sources of information respecting books presented to or purchased by the Society. It may therefore be regarded as a Catalogue of the books

which belong to the Society, and which *should* be in its possession, rather than what actually is so; for, in consequence of the books remaining long unbound, and other causes, some of the volumes, or numbers of periodicals, are still missing.

The unbound volumes were accordingly placed in the hands of the bookbinder to be bound up where complete, and where periodicals were defective, to have them put in cloth or otherwise, as circumstances appeared to require; and some estimate may be made of the then condition of the Library, when it is stated, that a dozen volumes or so required repair, by lettering and otherwise, as many have been put up in cloth, and 45 or more half-bound during the past year.

In this way it is probable that deficiencies will be more readily ascertained, than if the list of books had been made up from the shelves,—where the number of volumes does not yet perhaps much exceed 250, exclusive of Blue Books, Gazettes, and unbound numbers of periodicals,—and the wants found out only on inspection and inquiry. It may also be hoped that the liberality of members and others will not be wanting to place the Library of your Society on a suitable and efficient footing.

In the formation of a Library Catalogue, there has been a great diversity of opinion and of practice; and for some time, a *scientific arrangement* of the books was considered the best. It is so, in so far as it collects together works of the same class, or which treat of the same subject; but, like scientific instruments, all scientific arrangements require scientific skill for their proper use. This obviously renders such unsuitable for a public library; and accordingly, a common *alphabetical arrangement* is now generally preferred.

In some libraries they have both sorts; as in the great Harvard Library, where besides an alphabetical there is a systematic catalogue, in which the books are distributed into general classes, each of which again has its subdivisions.

In some other libraries in America, the systematic catalogue is in the nature of an *index of the subjects*; to effect which, the

books are analyzed, and the several subjects treated of arranged under their respective heads. Such an analysis is to a library what an index of contents is to a book: it is an aggregate index.

This is an important step towards the better preservation and diffusion of knowledge; and, if judiciously executed, it is calculated materially to advance literature: it will lessen the labour and anxiety at present unavoidable merely to find out where a particular subject is treated of, and prevent much of that waste of intellectual power now constantly going on from ignorance of what has been thought or done in the matter by others before us.

In one instance in America, the design of the analysis is "to make the catalogue so full, that no one shall be obliged to remove a book from the shelves in order to learn its contents or subjects." See Report on Public Libraries in America, p. 64. It may be doubted, however, whether such a catalogue of a general library would not, by its bulk, lose its utility in its accuracy. The true principle, perhaps, is to adapt the index to the character and wants of the Society of whose library it is the catalogue; and, no doubt, the aggregation of all such would become a *UNIVERSAL CATALOGUE*, embracing the whole body of extant literature. See an interesting article on the formation of Library Catalogues by stereotype and separable titles, in the Proceedings of the American Association for the advancement of Science, held in August 1850, p. 165.

The plan of a stereotype catalogue here suggested, and the principle of analysis above indicated, might both be applied to the Library of your Society with advantage.

In the pursuit of knowledge in Ceylon, there are difficulties not a few, particularly as regards native literature. For after you have mastered the characters, and are able, as you think, with your Clough to make your way through a native pas-

sage, comes difficulty the first—Where are the books? There is no Bibliopole! no ola store! And when you at length hear of an ola, you must employ some one to make a copy for you, and obtain the owner's leave for its being transcribed. When you have got all this, you open your copy and find yourself, to your dismay, among unpunctuated lines, and words without capitals, like an antiquated Greek inscription. And when you have at length deciphered some passages, you cannot tell what relationship they bear to the rest of the work, nor, perhaps, what relationship the work itself bears to others, if any. There is no index of contents; and, but for Mr. Alwis's valuable labours, scarce any guide, no comprehensive Manual of the literature.

Some of these difficulties will, of course, not be fully met till there is a greater demand for native works. But even now, if there is not employment or enterprize enough for a bookseller and publisher here, nor for a professional book agent, your Society might meantime be the medium, by its Librarian, for ascertaining where olas for transcription are to be found, and for employing trustworthy copyists to transcribe. This would be a boon to many; and by the facilities thus afforded, tend in its operation to promote the cultivation of native literature.

It would greatly facilitate the perusal of native works, and the study of the native literature, if, in transcribing, the copyist would always separate words and sentences, as is now done in the Tamil, and occasionally in the Singhalese. This, however, requires caution and literary knowledge, the language allowing a union of words by elision of vowels and otherwise. But with all the members of your Society this should be kept in view, and a uniformity in this respect preserved in the Society's Journal.

To a beginner, the characters in the Singhalese language are sufficiently puzzling. Yet they are for the most part remarkably simple and uniform in their structure. They may to a considerable extent be reduced to two elementary particles

Meeting of the Royal Asiatic Society, held this day, I have the honor to convey through you, to the Ceylon Branch of the Royal Asiatic Society, the best thanks of the Society for this addition to their Library.

I have, &c.,

D. CLARKE,

Hon. Secy.

The Secretary of the

Ceylon Branch Royal Asiatic Society.

At the last Committee Meeting, a recommendation was also made that two copies of Dr. Kelaart's work on the Fauna of Ceylon be received in lieu of payment of past subscriptions due to the Society; it now remains with you to confirm this recommendation of the Committee with reference to Dr. Kelaart.

During the past year also many interesting contributions have been forwarded to the Museum by Mr. Ondaatje, whose labours in bringing to light many important natural products of his neighbourhood, cannot fail to elicit your high commendation; it will also be a matter for your consideration at this meeting, to acquiesce in a proposition made at the last Committee Meeting, to grant Mr. Ondaatje the sum of £10 to defray any incidental expenses that may arise during his researches; several of these products are now laid on the table, and those which have not been described at the last Evening Meeting of the Society, will now be detailed.

It will be satisfactory to learn that the recommendation of the Committee to open the rooms of the Society for public inspection at stated periods, was first tried during the last Christmas holidays, when many visitors availed themselves of the privilege.

In conclusion, notwithstanding the great losses this Society has sustained from time to time by the departure from the Island of many of its most active members, a vicissitude to which it must at all times be subject, it is hoped that many will be found both able and willing to assist in forwarding the great objects of the Society, whether, as regards research into the ancient Literature, History, or Antiquities of Ceylon,

or with a more utilitarian and practical object in view,—the investigation of its varied natural products,—for all of which pursuits there is such ample room.

Moved by Mr. Alwis. “That the Report now read be adopted.”

Seconded by the Rev. J. Kats, and carried unanimously.

Proposed by Mr. Alwis and seconded by Dr. Lamprey.

“That Government be applied to for information as to where the Illustrated Catalogue and Medals of the Great Exhibition of 1851, sent out to the Colony, are to be permanently deposited.”

Mr. Alwis was of opinion, in moving his proposition, that the Rooms of the Ceylon Asiatic Society would be the fittest place for depositing them; for besides having the means of preserving valuable books, the services the Society rendered to the Great Exhibition ought alone to entitle it to some consideration.

The Rev. Mr. Kats thought that some official enquiry should be instituted to ascertain why the Society was neglected in the general distribution of the Jury Reports, Illustrated Catalogues, &c. of the Exhibition.

It was then resolved that the Jury Reports sent by Mr. Capper to Dr. Willisford and transferred by the latter to the Society, should be distributed by the Society, according to the instructions contained in the correspondence laid on the table.

The Reports to be distributed as under:

To Dr. Willisford,

„ R. E. Lewis, Esq.,

„ Clerihew, Esq.,

„ E. R. Power, Esq.,

„ J. D. Alwis, Esq.,

„ T. A. Pieris, Esq.,

„ J. Armitage, Esq.,

„ Messrs. Parlett O'Halloran & Co.

The Secretary then proceeded to detail the various interesting contributions sent to the Society by Mr. Ondaatje of Badulla.

1. Specimens of the stem, liber, and a drawing of the Fig tree from which the Kandyan paper was manufactured, together with a specimen of the ashes of the *Erythrina Indica*, with which the inner bark is boiled, and some of the prepared pulp made into the form of bricks, in which state it could be conveniently exported.

2. A quantity of Black Resin, the produce of the *Semecarpus abovatum*; it belongs to the same family of plants as the trees producing the Japan and Indian black varnish. Also a specimen of varnish prepared with this resin and East Indian copal.

3. Inspissated red juice from the wild nutmeg, of a laminated and resinous appearance, translucent at the edges of fracture, of an astringent styptic taste. Forms a variety of the substance known in Commerce under the name of Dragon's Blood.

Professor Lindley states, on the authority of Endlicher, that a species of *Mysistica* of the Phillipines "yields a crimson juice, which is collected from incisions in the trunk and used as a substitute for Dragon's Blood."

4. A very fine sample of meal sago extracted from the Jaggery Palm.

5. A quantity of the prepared bark of the *Toddalia aculata*.

"It is used in Southern India as a remedy against remittent Fever. In the 4th Vol. of the Journal de Pharmacie, p. 298, Dr. Virey gives an account of it. My object in sending it to you is with a view to examine its active principle after extracting it from the bark. The family to which this plant belongs, as you know, is XANTHOXYLACEÆ, and yields a crystalline principle, *Xanthopierite*. By touching the inner bark with Nitric acid, you will find it to give a red colour.

"Dr. O'Shaughnessy has given the following account, derived from French chemists, for preparing *Xanthopierite*.

"*Xanthopierite* is prepared by digesting the bark in alcohol, evaporating the tincture to the consistence of an extract, acting on the extract with water and ether in succession; the residue dissolved in boiling alcohol gives crystallized *Xanthopierite* on cooling and evaporation. It is

of a greenish yellow colour, very bitter taste, devoid of acid or alkaline properties, little soluble in water, but freely in alcohol, especially when heated. Nitric Acid gives it a red colour."

6. A remarkably fine specimen of Sulphur ore, almost equal to Sicilian, obtained from Terrepha in Walapany: it is studded and permeated with crystals of pure Sulphur.

"The mode of extracting the sulphur is, I think, understood by the Kandians, as I hear it was one of the Rajakarias or compulsory labours performed by the Kandians. I will take another opportunity of describing the Kandian process of obtaining Sulphur. I suppose it is by sublimation."

7. Iron Alum, in small lumps weighing about two drachms and less, having the characteristic satin-like minute crystals, and almost pure.

"I found the Alum at a place called Bolcadde near Badulla, on a lofty Gneiss rock which is shooting up from the centre of an extensive valley, the soil of which is clayey. The rock is about 300 feet above the level of the ground, and in a state of disintegration. A large surface of the rock presents a stratified appearance, and from the fissures I collected the Iron Alum, which occurs as an efflorescence on it. The people living near this rock say that it was struck by lightning, and since that time the Alum has appeared on it."

On dissolving the native crystal, in water, filtering and recrystallizing it, a pure white Iron Alum was procured, having the same character of crystallization as the former, but very deliquescent; its constituents are Sulphate of Iron and Sulphate of Alum.

List of Minerals presented to the Asiatic Society.

a. The Malabars call this mineral Gerbasoodamane, and it is rubbed with lime juice and applied to the umbilicus to act as a parturifacient; it is also given internally. Found in Mahatellilla oya near Dickkapitteagama.

This mineral resembles a gum resin more than a mineral. It is of a yellowish green colour, and not very brittle; its edges are somewhat translucent, and the surfaces of fracture are smooth and shining. It is not soluble in water, and but slightly acted upon by sulphuric acid. Calcination reduces it to a reddish burnt clay like substance, and it appears to be a composition of Alumina Silica and Oxyde of Iron.

b. The Singhalese call it Gandagangalle. (Sulphur stone.)
Found at Bogodde near Ampitte.

This substance has externally the colour of Sulphur, dispersed through a deep and beautiful shade of green; it is very soft and when moistened is saponaceous to the feel, at the same time leaving a green colour in solution on the finger. Strong sulphuric acid dissolved it, at the same time making it a very light shade of yellow; before the blowpipe it became a black hard mass, and gave off no fumes of Sulphur whatever.

c. Found at Hewalgolla near Gallaboddaallata Yhaliwa.

Resembles marble, and is almost of as fine a grain, but not so purely white: it is Dolomite.

d. The Singhalese call this Yoda attc' (Giant's bones). According to their tradition it is the bones of two giants who fought and perished at the place where this mineral is found!

It is Limestone from deposition; it does somewhat resemble a decayed bone externally, but a slight examination determines its real origin.

e. Magnetic Iron ore.

Found at Yatte Kohila and Arrapasse on the road to Katragam.

A very fine sample of Magnetic Iron ore.

f. The Singhalese call it Nilgarrunda gal; rubbed with turmeric a red colour is produced; it is used as an antidote against snake bite. Found at Garrandegalle near Walapane.

A variety of tourmaline, but not of a very compact structure.

g. Found at Dickkapitteagodde.

Are large crystals of black opaque tourmaline.

h. Found at Mahatellagodde near Dickkapitte.

Is a variety of mica slate.

i. & j. Found at Arrapasse, on the road to Katragam.

Varieties of Hornblendic rock, one is of a green shade, and when treated with strong sulphuric acid, it gave off strong fumes of Chlorine.

The Secretary presented to the Society a specimen of Pyrites which he procured at the last Horticultural Show, from the Modliar of the Sina Korle, from whose district it was brought; on examination of the specimen it was found to be auriferous, though in a very small degree.

The Secretary then read a paper on the Coffee Blight, the Cotton Aphis, and some new varieties of Lac lately procured in Ceylon. The paper was ordered to be printed.

On the Coffee Blight, the Cotton Aphis, and some new species of Lac. By J. LAMPREY, M.B., Hony. Secretary to the Ceylon Branch, R. A. S.

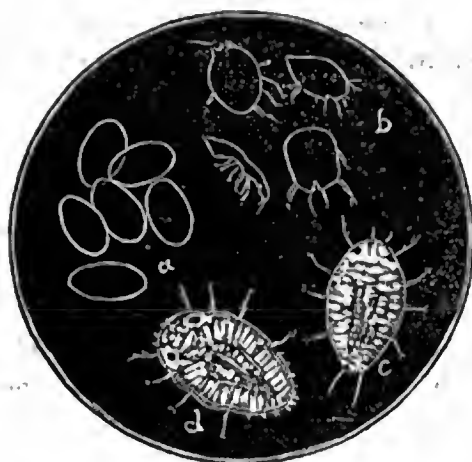
I had the greater portion of this paper prepared for publication some months past, but waited for the result of an experiment I had entrusted to a friend to make on his estate before committing it to type, as the most important portion of the information I wished to convey would not have been forthcoming till the result of that experiment was known. In the meantime, however, another person has made the experiment I suggested to my friend some months back, and, according to the statement lately published in the local prints, with the best possible result; I am now, therefore, on this testimony, able to complete that portion of the paper I was formerly in doubt about, and lose no further time in laying before the Society the account of my examination into the structure and habits of the insect causing the Coffee Blight, together with the fortunate discovery of a remedy for it I accidentally made in December 1852. I shall also take the opportunity of making a few remarks upon some allied species of insects, which are equally interesting to the Ceylon Planter; such as the White Bug, the Aphis of the Cotton plant, and some varieties of Lac lately procured in Ceylon, all which are insects belonging to the same class of Animals, and are perhaps, without exception, the most interesting of the whole Animal Kingdom, whether viewed in a purely scientific light, as beings which reveal the phenomena of life and the mysteries of instinct under the most singular aspects, or as exhibiting the fecundity, power, and resources of nature; or considered in a practical and utilitarian point of view, as beings capable of performing so much good or evil.

I shall first endeavour to describe the Scale insect or Coccus of the Coffee tree, or as it is more commonly called, the Coffee Bug, a creature so small and insignificant when examined individually as scarcely to deserve notice, but yet capable of originating most disastrous consequences, when once it has established itself on an Estate; and in short, there is no visitation to which the Coffee Planter is exposed, more dreaded, on account of the diminished crops which ensue, the injury it does to the Plantation, and the uncertainty of its disappearance; hence the study of the structure and habits of this insect, which is capable of causing so much disappointment and even ruin, cannot fail to be a matter of the deepest importance to the Coffee Planter.

If we take up the leaf of a plant thickly covered with the Bug, we find in the first place that it is of a velvet like black colour, instead of the healthy polished green; and if we thrust our hand into the Coffee bush, we find it covered with a black slimy substance; hence the dark appearance of a Coffee Estate when suffering from the Blight, and the little difficulty there is in recognising it from a distance.

If we examine this leaf minutely, we find that its black colour is due to a vegetable mould, and that the leaf-stalk and the stem are thickly studded with little lumps or eminences of a brown colour, varying in size from that of a grain of wheat to an almost microscopic object, quite hard to the feel and strongly adherent; when we detach one of the largest we find, that in doing so a quantity of impalpable dust appears to be let loose, and nothing but a hollow shell remains, but when a quantity of this dust is examined under the microscope, each particle of it is found to be a little ovum or egg, as seen in *fig. 1. a.*, or an exceedingly small and undeveloped living insect, as seen at *b*, or some of the ruptured egg shells from out of which the latter escaped. Again, if we examine one of the smaller spots on the leaf, we find that externally it bears some resemblance to the large one originally detached, though longer and flatter in proportion, and having its outer

Fig: 1.



surface divided into partitional scales; there is no appearance of legs, or feet, or antennæ, or anything to denote a living insect, but after closely watching the object a little, it is seen to put out feet and change its position, and appear an active living animal.

Some are found to differ from others in external form, as seen at *c. d.*; the former appears to be the male and the latter the female.

The female after leading a locomotive existence for a short time, at length, when she finds a suitable place, becomes fixed and adheres to the leaf or stem from which it afterwards derives its sustenance; being already pregnant, the countless eggs within its body enlarge by deriving their sustenance from their parent, and becoming hatched inside its body, consume all its internal structure, till at length, the parent becomes nothing but a hollow shield or house in which its progeny reside till sufficiently mature to go forth on their own account, which they do by merely walking out from under the edge of the scale; it now happens that a sudden change of temperature, or the accidental rubbing of one leaf or stem against another during a strong breeze, detaches a matured scale from the leaf, at the same time carrying the

dust-like ova to a distant plant, upon which they propagate their species, and are again destined to spread themselves in a similar manner. But by far the most constant mode of dispersing themselves is afforded by the close proximity of one Coffee plant to another; and although they may not be so closely planted as to touch each other, the presence of weeds upon the Estate must afford them an equally easy transit. And when it is known from the calculations of Reaumer, a Naturalist who devoted a good deal of time to such pursuits, that one Aphis, a creature about one-sixth of the size of the Bug, may be the progenitor of several millions of descendants in an incredibly short space of time, the rapid propagation of this pest may be satisfactorily accounted for.

It is during the period that the insect is in a locomotive state and for a short time after, whilst the ova are being matured, that the injury is done to the tree. Being provided with a sucking apparatus called *hostellum* by naturalists, and probably furnished with a secretion from its body, it pierces the cutis of the leaf, irritates the surface of the plant, and causes it to furnish a juice upon which it feeds; it is this irritation, coupled with the closing of the breathing pores of the leaf, whereby respiration is prevented, that causes so much injury to the plant, which literally becomes suffocated and exhausted, and all its functions impaired.

To give an idea of the ravages of this pest were almost needless; its mysterious commencement and disappearance, its attacking a particular part of an Estate and leaving the rest untouched, the various efforts that have been made to destroy it, the pertinacity with which it withstands them all, and the gradual manner in which it spontaneously disappears when left alone, are all familiar to every one conversant with Coffee planting; but with the knowledge of the structure and habits of the insect just detailed, it need no longer be a matter of wonder and surprise how an Estate becomes so rapidly or so mysteriously attacked, or why the remedies hitherto proposed should have proved inefficient; though it may still

afford extremely interesting matter for research to determine what natural agencies promote its disappearance and protect those Estates upon which it has not as yet made its appearance.

The subject of a remedy capable of counteracting the ravages of this pest of the Coffee Planters has already received much of their attention, but the plans hitherto proposed have either been impracticable, too expensive, too tedious, or altogether futile when applied. In 1848, the subject appeared of so much importance to Ceylon, that a correspondence with reference to it was entered into between the Home and Colonial Government, when Professor Lindley the eminent Botanist was consulted, and gave as his opinion that hot water, if applied directly to the Bug, would prove efficacious. All the correspondence on the subject will be found in the Government Gazette of the period alluded to. Since then, though the remedy proposed by this eminent individual was quite futile and impracticable, the subject does not appear to have had any further consideration given to it, with the exception of some casual suggestions made in the local prints, though the Blight has continued to make the same ravages as before.

My attention was accidentally drawn to this subject in December 1852. While examining the leaf of a jungle plant growing within a few miles of Colombo, I was struck by observing a large Red Ant on its under side putting himself into an extraordinary position, evidently annoyed at the intrusion, and endeavouring to shew fight, and on looking closer I saw the cause of his excitement to be a scale insect which he guarded most resolutely, at the same time making a sharp clicking noise by striking the leaf with its tail, and putting himself into most grotesque attitudes. The thought immediately struck me that he had some very interested motives for thus guarding the scale insect, and in all probability he either fed upon it, and only wanted the opportunity of tearing it from off the leaf, which his large expanded jaws appeared well capable of doing, or perhaps he fed upon the young as they

escaped from beneath the scale, or perhaps it supplied him with some nectar-like secretion.

To solve this question, I examined a Red Ant's nest, but found no satisfactory result, as the Microscope revealed no *dejecta membra* of scale insects. I next caught a few Ants on their way up and down the branches of the tree, but found no scale insects in their mouths; in this I was disappointed, but tried another means of solving the problem. I brought home a quantity of the Ants and their nest, and placed them on an Oleander tree in a compound in the Fort, but after a time I found that the Ants had disappeared, and the Bug was as numerous as ever; the reason of this I inferred from the fact that the Oleander afforded bad leaves for their protection, nor were there any more suitable trees in the same compound. Since the period of this experiment, I had been so much occupied with other pursuits and much engaged in active Military duties, that I was not able to give the subject any further attention, till about May last year, when I wrote to Captain Wilkinson of New Market Estate, stating my opinion of the efficiency of the Red Ant in removing Bug, and recommending him to make the experiment, at the same time I offered to send him a quantity of the Ants; unfortunately other matters were occupying his attention at the time, so that he was not able to attend to my note; however he mentioned the subject of it to several Coffee Planters in his neighbourhood, and others who were staying at his house at the time, who freely discussed the feasibility of the experiment.

Since then my attention has not been again drawn to the subject, though I had looked forward to further investigations at a future time, till a few days ago, when I read a statement from Mr. Young, which was published in the local Prints, setting forth that he had discovered an effectual remedy for the Bug, which he proposed keeping secret till he should receive sufficient compensation from the Coffee Planters; but in a few days after, I read the disclosure of the secret

which he published, and was very much astonished to find that the remedy he set forth was the application of the Red Ant in the manner I had suggested to Captain Wilkinson some months previous.*

* Captain Wilkinson kindly afforded his testimony to this assertion by publishing the following letter in a local Journal at the time so much discussion was about.

"To the Editors of the Colombo Observer.

New-market Estate, Pusilawa, January 29th, 1854.

SIR,—With reference to a letter concerning "the Bug" which lately appeared in your paper, I should feel obliged by your giving publicity to the fact, that as far back as May or June last, Doctor Lamprey wrote to me offering to send some nests of Red Ants to my Estate, at the same time expressing his firm conviction that he had made a discovery by which he could effectually destroy the Bug upon Coffee Estates.

I have, &c.,

N. A. WILKINSON,

Late Capt. 15th Regt."

Since this paper was read before the Society, a letter has appeared in the *Ceylon Times* of the 3d February, 1854, from Mr. Simon Keir; stating that so far back as 1851, the Red Ant was used to remove the Bug from a Coffee Estate, so that the priority of discovery contended for clearly belongs to another party.

"In January 1851, I observed the Bug disappearing very rapidly from an Estate under my charge on the Hunasgiria range, which had been overrun with it. On examining the bushes we discovered at once that the Bug was being devoured by a large Red Ant, which cleared the whole away in a very short time. I naturally thought that a cure for the Bug had at last been discovered, and took great pains in removing some of their nests to another Estate in the same district, a considerable portion of which was also covered with Bug; this Estate is about 1,000 feet higher than the one on which I first found the Red Ants, with a climate of course much damper and colder,—which no doubt accounts for my inability to see anything of the Ants but their nests the second or third day after removal to the higher Estate. But most planters of experience, I think, will admit, that if these Ants could be regularly established on our Coffee Estates, it would be a much greater calamity than the Bug itself.

An objection to the use of the Red Ant, however efficacious, has been raised on account of the well known aversion the Coolies have to go near where they are to be found in abundance; but this might be obviated by clothing the Coolies in a light cotton dress and providing them with common leather gloves which would effectually keep the ants from biting their skin, for it must be borne in mind that they do not sting but bite. At all events Red Ants ought to be more welcome visitors to an Estate than the Coffee Bug; for however numerous the former may be, they do not interfere with fruition or any other function of the plant. Again, they might be destroyed in a wholesale manner by taking their nests and burning them. Again there are other ways of obviating this objection which appear to be commonly practised by the Singhalese whenever Red Ants become troublesome; the first method is as follows. They collect a quantity of large Black Ants, called *ambilere* in Singhalese, they are about the size of the Red Ants called *dimia* in Singhalese, but are shorter and thicker, they are perfectly harmless and build also in trees, and are different from the large Black Ants which are to be found running in lines across a road or pathway, whose bite is even more painful than that of the Red Ant, and having placed a few of their nests in a tree frequented by the Red Ant, the latter are most expeditiously dispersed.

Another mode is commonly practised by which the Red Ants

From the Plantation first alluded to, they disappeared as soon as they had finished the Bug, or to all appearance had done so; but we had hardly lost sight of the Ants, when I regret to say the Bug came back again; it seems, however, now to be leaving the Coffee districts of its own accord, and I hope it will not be long before we can reckon it 'amongst the things that were.'

Your's truly,

SIMON KEIR."

"P. S. I ought to have mentioned that the elevation of the Estate where I found the large "Red Ants" is about 2000 feet, and that of the Estate to which I removed them 3000, or 3,500 feet above the sea."

are effectually destroyed *en masse*. If the carcase of a small animal, such as a bird, a rat, or if their skin or entrails be laid on a tree or underneath it where the Red Ant abounds, it will soon be covered by them in considerable quantity, as they are very partial to animal food, when they can be destroyed by pouring hot water over them.

There are also several other insects which appear to be equally destructive to the Bug, though perhaps none of them could be so easily applied as the Red Ant, viz. there is a beautiful variety of the *Coccinella*, called the gold fly, to be met with in great abundance on the low bushes about Colombo, also a larger variety of the same insect, of a beautiful green colour spotted with black, which is equally destructive to Aphides; and I have the opportunity of laying before you a Lady-bird I caught flying in my verandah yesterday morning, which appears to be identical in size, form, and colour with the same insect which is so highly respected by the Hop growers of England for the benefit it confers upon the Hop gardens.

There is another variety of *Coccinella* more active and more industrious in his habits than the others, which I have recently observed to be very abundant in the Hill country. It is a very small insect, about one-third of the size of the common Lady bird; its colour is black with a white margin extending around the outer edges of the *elytra*.

The application of any solution to destroy the Coffee Bug, must, I fear, judging from the structure of the insect, be altogether futile, unless they be of such a strongly corrosive nature as to prove destructive to the tree as well.

There is one remedy, however, of this class which appears to be less objectionable than the others, and that is the application of some of the essential oils. I mention it on the authority of Davis, who states that the Chinese use an essential oil to destroy a Bug which affects the Tea plant.

The best preventative to the occurrence of the Bug, judging from the analogy which the Animal Kingdom affords,

is to keep the plants in a healthy vigorous condition by proper manuring, proper tilling of the soil, and proper pruning. It should be borne in mind also, that it is not the Coffee plant which alone gives sustenance to the Bug; it will be found on mostly all plants of the jungle, and especially those of a succulent nature, which should be carefully removed from the vicinity of a Plantation.

The White Bug.

There is a Coccus possessing similar characteristics with the last described, but having gigantic proportions in comparison with it; it may be named the White Bug from its colour. I found the first example I have seen upon a Bullock's heart tree (*Annona reticulata*) growing in a garden not far from the Fort, and though there were but few of them to be found on the tree, they have had the effect of retarding its growth in a remarkable manner, and causing it to produce very abortive fruit. Its outer surface is rather square shaped, and instead of being smooth, like the last, it is ridged and grooved in a perpendicular direction:—on detaching one from the branch, the same dust-like substance was scattered about, which on examination proved to be the ova of the insect. It is a fortunate circumstance that this insect is not so universally found as the former, as it appears to be much more injurious to vegetation than the Coffee Bug.

Cotton Aphis.

The next insect I have to describe is the Cotton Aphis, which appears to be altogether a different variety from the other members of the same family, and not altogether confined to the Cotton plant.

I found an example on a Cotton plant growing in a very confined locality and in an extremely rich soil; the accompanying engraving will explain the difference of appearance between this and the last two insects. They are easily recognised on the plant by the white wool like substance with which they are covered, and on removing this, they are to

Fig: 2.



be seen moving about and in all sizes, from an almost invisible object to a size about the one-sixteenth part of an inch in length, this wool-like substance marked *b. fig. 2.* seems to be a vegetable mould, and is one of those wonderful provisions of nature serving as a means of protecting the insect from the various enemies to which it is exposed.

On opening an impregnated female and examining the inside of its body, ova in large quantities are to be seen as at *a. fig. 2.* The form of the male *c. fig. 2* appears to differ considerably from the female *d.* and seems to be deficient in wings.

I found a number of small Black Ants on the tree on which I procured the Aphis, but soon ascertained that they fed upon a nectar produced by the Aphides. I have no doubt that if this insect proves a serious obstacle to the Cotton Planter, the large Red Ant would again prove a useful exterminator.

Lac.

In the proceedings of the last Evening Meeting of the Society, a sample of Lac from the Badulla District, contributed by Mr. Ondaatje, was noticed; from that sample I have succeeded in obtaining its two valuable products by a simple

chemical process, namely dissolving the crude Lac in an alkaline solution, separating the impurities by filtration, and afterwards precipitating the Shellac with an acid, and then evaporating the solution so as to obtain the dye. I have thus succeeded in obtaining Shellac and Lac dye; the former, a sample of which I now lay before the Society, though of a dark colour is not inferior to the Shellac of commerce; and the latter, though inferior to carmine, the product of the Cochineal insect, might be made a useful purple dye.

I have also received a sample of Lac from the Chilaw district, differing from the former in many particulars, and I conceive it to be a "new species." It is almost transparent, in single rounded and isolated cells, and yields a light coloured Shellac, but no dye; which, however, may be owing to the escape of the ova.

I have also procured a specimen differing from the two former ones, which I procured at the Horticultural Exhibition held the other day at Colombo; it is not so rounded in outward form, though existing in separate cells, and it contains a yellowish mass of a rich orange colour, which is not affected by Sulphuric acid, and which might be prepared in a manner similar to the purple dye. On examining this yellowish mass under the microscope, it appeared to consist exclusively of ova, and we now have the opportunity of seeing "the first appearance of the young Lacs in public." You observe a number of very minute creeping insects which appear all over the stick, bearing a close resemblance to the Cochineal insect in their outward form: thus shewing that it would not be a difficult matter to propagate the species; the tree upon which they are found grows freely in the Sina Korle, it is called *Kapitia* by the Singhalese.

I have observed on the same branch on which I found this Lac, a number of minute spots of a stellate character, having six rays; this appears to be the commencement of the cell of the future insect.

I also observed a quantity of indurated black substance

similar to the *Kaddepas* sent to me for examination by Mr. Ondaatje, which appears to be the result of the destruction of the *Lae* insect by some *Ichneumon* fly.

There are several other varieties of this class of insects to be found in Ceylon, some of which are as conspicuous for their extreme beauty, as others are for their strange forms; but I shall now conclude, hoping that on another occasion I may have the opportunity of describing a few more of this very interesting class of animals.

After this paper was read, much discussion ensued, Mr. De Alwis stated that it was well known to the Singhalese generally that the Red Ant was a good destroyer of the Bug, and was constantly employed by them for that purpose; he also stated in corroboration, that as far back as 1848, he had a delicate plant in his garden which was much injured by Caterpillars, and tried various modes of getting rid of them by ashes, washing, &c., but all to no purpose; at length a Singhalese man counselled him to put a few nests of Red Ants in the tree, which he did, and they soon destroyed the Caterpillars.

The Chairman (Mr. Armitage) mentioned that while giving to Dr. Lamprey all credit due to the priority of discovery as to the mode of destruction of the Bug by the Red Ant, he thought that Mr. Young was also entitled to the merit of originality. It often happened that when an important discovery was made, other minds were on the same track, and were thus entitled to high credit, though the chief credit devolved on the one who was first in the path.

Consequent on Mr. Young's advertisement, he, Mr. A. himself had been making some experiments with a view to the destruction of the Bug, on an orange tree in his garden, and was about to apply some Coal Tar to the stem of the tree, when he was told by his Appoo that it was unnecessary, as the Red Ants were already destroying the Bug; he was accordingly watching the process when publicity was given

to the plan of Dr. Lamprey and Mr. Young. Mr. Armitage concluded by expressing a wish that Dr. Lamprey's paper would be published, as it might be the means of stimulating further investigation into most important subjects.

Proposed by Mr. Dawson and seconded by Mr. Alwis, that Mr. Justice Starke be made an Honorary Member of the Society.

Resolution.—"That as a mark of the high respect entertained by the members of this Society towards the Hon'ble Mr. Justice Starke, who has recently returned to England, he be elected an Honorary Member of this Society; that the Journals of this Society be regularly sent to him gratis, and that the Secretary be instructed to write to Mr. Starke expressing the feeling of the Society, and forwarding to him a copy of this resolution." Carried unanimously.

Proposed by Mr. Dawson, and seconded by the Rev. Mr. Kats.

"That during the absence of Dr. Lamprey in Kandy, Mr. Alwis be requested to act as Assistant Secretary."

J. LAMPREY, M. B.

Hony. Secretary.

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COMMITTEE MEETING, HELD JUNE 3D, 1854.

*Present.*—J. B. Misso, Esq., in the chair; Messrs. R. Dawson, W. Skeen, M. Coomarasamy, L. De Zoyza, and the Assistant Secretary.

Mr. Dawson laid before the Meeting the accounts of the Society, and requested to be relieved of the trust reposed in him as Treasurer, he being about to quit the Island.

Moved by Mr. De Zoyza, and seconded by the Assistant Secretary.

"That the thanks of this Society be presented to Mr. Dawson for his kind and valuable services as their Treasurer."

Moved by Mr. Dawson, and seconded by Mr. Coomarasamy.

"That Mr. Skeen be requested to act as the Treasurer of this Society."

Mr. Skeen having intimated his willingness to undertake the duties of Treasurer, the accounts, papers, &c., were handed over to him by Mr. Dawson.

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Read the following correspondence :

*Colonial Secretary's Office,  
Colombo, 13th February, 1854.*

SIR,

I am directed by His Excellency the Governor to transmit to you a copy of the Official Catalogue, the Jury Reports, the Reports of the Commissioners, and a case containing the Prize Medals of the Exhibition of 1851, the same having been presented to the Island of Ceylon by Her Majesty's Commissioners for the Exhibition of 1851.

His Excellency sends the work to the Asiatic Society as the most public body connected with literature in the Colony.

I have &c.,

P. W. BRAYBROOKE.

*The Secretary of the*

*Ceylon Branch Royal Asiatic Society.*

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*Ceylon Branch Royal Asiatic Society,  
Colombo, 14th February, 1854.*

SIR,

In acknowledging the receipt of your letter of the 18th instant, communicating His Excellency the Governor's decision to transmit to the Ceylon Branch of the Royal Asiatic Society the Jury Reports, the Prize Medals of the Exhibition of 1851, &c. I have the honor to request you will direct that the same may be sent to me, and to state for the information of His Excellency the Governor that they will be open for public inspection at the Society's Rooms, from 11 A. M. till 3 P. M. on

civ.

*Appendix:—Proceedings of*

week days.—I may perhaps also state here that it would be desirable that a public notification to the effect that the above Reports &c., are open for public inspection should be published in the Government Gazette.

I have, &c.

JAMES ALWIS,

*Asst. Secy.*

*The Hon'ble*

*The Colonial Secretary.*

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*Resolved.*—That the Secretary be authorized to have covers made for the Books forwarded by Government; and that they be kept at the Society's Rooms for public inspection from 11 A. M. to 3 P. M. on week days.

*Resolved.*—That the proceedings of this Meeting be published for general information.

The Secretary laid on the table the following books received since the last meeting.

5 Nos. of the Annals and Magazine of Natural History.

2 Nos. of the Journal of the Indian Archipelago.

Copy of the Report of the Government Central Museum.

JAMES ALWIS,

*Asst. Secy.*

MEETING HELD AUGUST 17TH, 1854.

*Present.*—Messrs. C. P. Layard, J. B. Misso, W. Skeen, L. De Zoyza, and the Secretary.

The Secretary laid before the Meeting, as the principal object for which it had been convened, a letter from Government dated the 7th August, 1854; enclosing copy of a Despatch received from the Secretary of State with reference to the Paris Universal Exhibition of 1855. Also, a portion of the third part of the Society's Journal for 1853-4 in course of

publication; and the following works received since the last General Meeting, viz:—

Journal of the Bengal Asiatic Society, No. cexix.

2 Nos. of the Journal of the Indian Archipelago.

2 Nos. of the Annals and Magazine of Natural History.

The Secretary also laid on the table for the use of the members, a number of copies of the Despatch of the Secretary of State with reference to the Exhibition of 1855.

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*Colonial Secretary's Office,  
Colombo, 7th August, 1854.*

SIR,

I am directed to transmit to you the enclosed copy of a Despatch received from the Secretary of State, on the subject of the Universal Exhibition of Agricultural and Manufacturing Products to be held at Paris on the 1st of May 1855, and to request that you will be good enough to take measures for the formation of a Committee for furthering the objects therein contemplated, reporting to me, for the information of His Excellency the Governor, the names of the Gentlemen who may be selected as Members of the Committee, and any other steps which may be taken by you in the matter.

I have, &c.,

P. W. BRAYBROOKE.

*The Secretary of the  
Asiatic Society.*

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*Ceylon Branch Royal Asiatic Society,  
Colombo, 23rd September, 1854.*

SIR,

With reference to your letter of the 7th August last, requesting that measures might be taken for the formation of a Committee for furthering the objects of the Universal Exhibition to be held at Paris on the 1st of May 1855, I have the honor to state, that in consequence of the removal by death and other causes, of several members of this Society, it has not been practicable to form a Committee such as you desire; but I am directed to state that this Society will have much pleasure in affording all the assistance in its power towards the carrying out of the object contemplated in the Despatch of the Secretary of State, of which you have forwarded to me a copy.

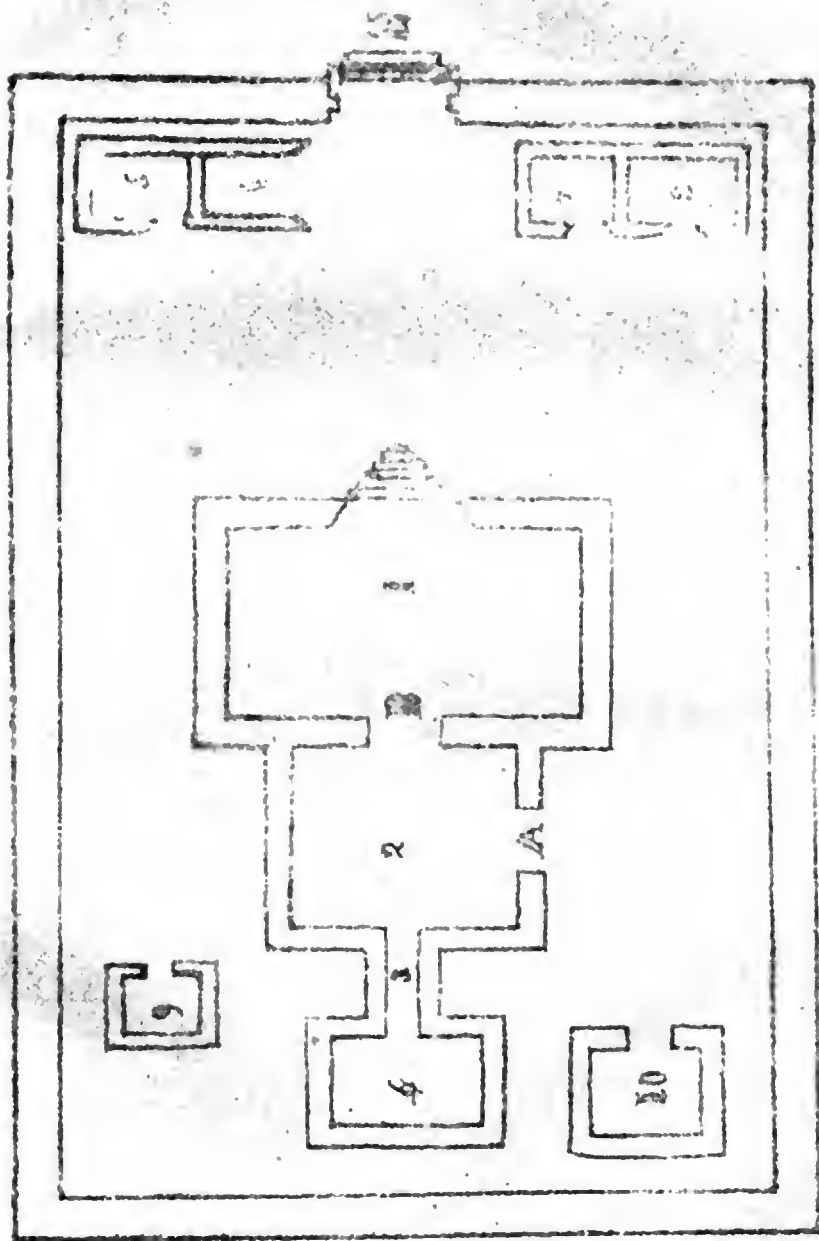
I have &c.,

JAMES ALWIS,  
*Asst. Secy.*

*The Hon'ble  
The Colonial Secretary.*

*Plan of the Temple of Chittreweylader Cowille, in the District of Mulletivoe or the Wanny. Communicated by C. S. VANDERSTRAATEN, ESQ.*

1. Sandana Mandapam; the front room of the Temple where the band and principal men assemble in times of festival.
  2. Mahamandapam; here the Brahmins and ordinary priests remain during the ceremony.
  3. Artha Mandapam; the place for performing oblations before the Idol in room No. 4, by the High Priest and his attendants.
  4. Ketpakraham: the room where the Idol Chittreweylader is placed: being considered most holy it is accessible only to the High Priest.
  5. Yagasaale; the place for burnt offerings.
  6. Mandapam; the hall where the Idol is placed, previous to its being carried on in procession.
  7. Kabeda; the store room.
  8. Madapally; the kitchen.
  9. Temple of Tanday Soorer. This deity is sentinel to Chittreweylader.
  10. Temple of Pulliar, the elder brother of Chittreweylader.
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## RULES AND REGULATIONS.

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[*Mem.*—The Asiatic Society of Ceylon was instituted 7th February 1845; and by the unanimous vote of a Special General Meeting of the Royal Asiatic Society, held on the 7th February 1846, it was declared a Branch of that Society, under the designation of the Ceylon Branch of the Royal Asiatic Society.]

1. The design of the Society is to institute and promote enquiries into the History, Religion, Literature, Arts and Social Condition of the present and former inhabitants of this Island, with its Geology and Mineralogy, its Climate and Meteorology, its Botany and Zoology.

2. The Society shall consist of resident or ordinary, honorary and corresponding Members; all elected by ballot at some General Meeting of the Society.

3. Members residing in any part of Ceylon are considered resident.

4. Persons who contribute to the objects of the Society in an eminent and distinguished manner, are eligible as honorary Members.

5. Persons residing at a distance from Colombo may, upon special grounds, and with the recommendation of the Committee, be elected corresponding members.

6. Honorary and corresponding members shall not be subject to any fee on entrance, or any annual contribution, and are to be admitted to the meetings of the Society and to the privilege of the Library, but are not to vote at meetings, or be elected to any of its offices, or take any part in its private business.

7. Every ordinary Member of the Society shall pay on admission a fee of half a guinea, and an annual subscription of one guinea.

8. The Office-bearers of the Society shall be, a President, Vice-President, Treasurer and Secretary, with a Librarian, Curator of the Museum, and Conservator of the Meteorological and other scientific instruments of the Society:—all appointed from time to time by open vote at some General Meeting of the Society; and their functions shall be as follows:—

[1.] The President, and in his absence the Vice-President, shall take the Chair at all meetings of the Society and of the Committee, maintain order, collect the votes, and cause the laws of the Society to be observed and enforced.



- [2.] The Treasurer shall receive, collect, and pay out all monies on behalf of the Society, keep an account thereof with the vouchers, and submit a statement of the pecuniary affairs of the Society to the Anniversary Meeting, and at other times as may be required.
- [3.] The Secretary shall arrange, give notice of, and attend, all meetings of the Society and of the Committee, and record their proceedings; he shall also edit the Journal, and exercise a general superintendence under the authority of the Committee.
- [4.] The Librarian, Curator of the Museum, and Conservator of the scientific instruments belonging to the Society, will take charge of the books and other articles committed to them respectively, keep a correct list thereof, and generally conform in their management to the Rules of the Society in that behalf, or in the absence of such, to the directions of the Committee; having respect at all times to the safety and proper condition of the articles, and to the interests of the Society in their increase and improvement: The Curator of the Museum, in particular, taking care to superintend the reception of all articles in that Department, transmitted to the Society, and have the same speedily submitted to examination and reported on, and suitably arranged.

9. The affairs of the Society shall be managed by a Committee of five Members in addition to Office-bearers, elected in like manner; but subject always to the Rules and Regulations passed at General Meetings; three to be a quorum.

10. Any person desirous of becoming a Member of the Society, must be proposed and seconded by Members personally, or by letter under the hand of such Members, at some General Meeting of the Society, and be elected by ballot at the next General Meeting; none to be considered as elected, unless he has in his favour two-thirds of the votes given.

11. A General Meeting of the Society shall be held Quarterly, namely on the 7th day of February or first lawful day thereafter, and in the first week of the months of May, August and November, and at such other times as may be determined by the Committee: due notice of the Meeting, and of any intended motion which does not come through the Committee, except the nomination of new members, being always first given by the Secretary.

12. All papers and other communications to the Society shall be read and submitted at a General Meeting by some Member of the Society, except in the case of communications from individuals not Members; when, if the meeting think fit, the same may be read by the author.

13. All Papers and other communications to the Society read or submitted at any General Meeting, shall be open to free discussion; and no paper read shall be printed in the Transactions of the Society (unless by a special vote it be otherwise determined), until the meeting next after that on which it was read, when it shall be decided on the report of a Committee or by distinct vote, whether it shall be printed in the Journal of the Society, or be kept among its records, or returned to the author: the vote to be by ballot.

14. The course of business at General Meetings shall be as follows:—

- (1.) The Minutes of the last Meeting shall be read by the Secretary, and signed by the Chairman.
- (2.) Reports of Committees shall be read, and communications made of all articles received, and donations to the Society.
- (3.) Any specific or particular business submitted by the Committee or appointed or open for consideration, shall be proceeded with.
- (4.) Candidates or new Members shall then be proposed, balloted for, or admitted as the case may be.
- (5.) Papers and Communications for the Society shall then be read.

15. Special Committees may be formed for the prosecution of any specific object or matter of research, but these must be named at a General Meeting; and they will act as much as may be in co-operation with the Secretary of the Society, who will also be a constituent Member of all such Committees.

16. Every Member of the Society has the privilege of introducing either personally or by a card, one or two visitors to the General Meetings.

17. Evening Meetings shall be held once a month, or at other times as may be arranged, for discussion on papers read, or to be read at General Meetings, (such papers however not necessarily being before the Meeting,) the mutual improvement of the Members, and the promotion of the objects and advancement of the interests of the Society.

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## RULES OF THE LIBRARY.

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1. All books borrowed from the Library shall be duly entered in the Receipt Book, with the date of giving out, and the date of the return.

2. No book to be written on, or injured in any respect whatsoever, and every book borrowed shall be returned in proper condition, as received.

3. The period for which books borrowed may be kept shall be as follows:—

[1.] Periodicals, and numbers or volumes of a series, while they remain unbound for 14 days only, and no more.

[2.] Other books for 3 weeks, unless in the case of persons resident out of the district of Colombo: in which case they may be retained for 6 weeks, and no more. But

[3.] All books borrowed, of whatsoever description the same may be, shall be returned to the Library one week at least before the 7th February in every year,—that pamphlets and serials may be bound up, and the Catalogues corrected; and that a proper Report on the state of the Library may be prepared for the Anniversary Meeting.

4. Dictionaries, and works of reference, or of especial rarity or value, do not go out: they remain in the Library for use or inspection; and Periodicals lie on the table for one Week.

5. All works in the Library, or on the table of the Society, may be seen and consulted by Members, and also by others properly recommended, with the leave of the Librarian or of his assistant under his direction.

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## THE MUSEUM.

No article under the charge of the Curator of the Museum, or of the Conservator of the scientific instruments belonging to the Society, shall be moved or touched but by the Curator and Conservator respectively, or their assistants under their express direction.

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## CATALOGUE OF THE BOOKS.

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### A.

- Asiatic Researches, Vols. 13 to 20, both inclusive. 8 Vols. 4to. with Index.  
*From the Asiatic Society of Bengal.*
- Auber's British Power in India, 2 Vols. 8vo.
- Agriculture, Journal and Transactions.
- Annals of India, By Dr. Buist.
- Anurajapoorā; some additional remarks on the ancient city of, By Capt. Chapman. *Donation from the author.\**
- Arabic and Persian Poetry, specimens of, 1 Vol. 8vo.
- Atmospheric Railway, pamphlet by James Pim, 1842.
- Astronomy, Bentley's Historical views of the Hindoo, 1 Vol.
- Archipelago, Indian and Eastern-Asia Journal.
- Africa, Park's Travels in, 1 Vol. 8vo.
- Artesian Wells, pamphlet on, By Dr. Kelaart. *From the author.*
- Alwis's Sidat' Sangarawa, or Singhalese Grammar, with Introduction, Notes and Appendices.
- Asiatic (Royal) Society, Journal.
- Asiatic (Royal) Society, Rules, &c.
- America. See also Smithsonian Institution.
- American Institution for the advancement of Science. Proceedings of Fourth Meeting, August, 1850.
- Asiatic (Royal) Society, Transactions.
- Asiatic (Royal) Society. The Primary Discourse, by H. T. Colebrooke, Esq., and Index to the three Vols. of Transactions and eight Vols. of the Journal, bound in 1 Vol.

### B.

- Bible, The Holy, in Singhalese.
- British Empire, The, By MacCulloch, 2 Vols.
- Birds. By W. Swainson, 2 Vols.
- British Moths and Butterflies, 2 Vols.
- Botany. By Moon, 1 Vol.
- Bengal Asiatic Society, Journal.
- Bengal Criminal Statistics. 1 Vol. 4to.

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\* Note. See previous notice of Anurajapoorā, Transactions of the Royal Asiatic Society, Vol. 3, p. 463.

- Bombay Branch of Royal Asiatic Society, Journal.  
 Bombay Geographical Society, Transactions.  
 Bennett's Ceylon.  
 Buist's Dr. Annals of India.  
 Batavian Society of Arts and Sciences, 12 Vols. of the Transactions in Dutch, presented by the Society, with a translated Index of Contents, by the Rev. J. D. Palm.  
 Boetticher, Paulus, Rudimenta Mythologiæ Semiticæ Supplementa Lexici Aramaici.  
 Blue Books.  
 Bibliotheca Indica. By Dr. E. Roer. *From the Asiatic Society of Bengal.*  
 Callaway's Singhalese Poems.  
 Cashmir, History of.  
 Cabinet Cyclopædia.  
 Criminal Statistics of Bengal.  
 Ceylon Magazine, 1 Vol.  
 Ceylon Gazetteer, By S. C. Chitty, 1 Vol. 8vo.  
 Christa Sanghita, The first five Chapters of, translated into Singhalese 1 Vol. 8vo. *From the Rev. J. P. Haslam.*  
 Chinese Language, Dissertation on its characters and sounds, 1 Vol. 4to.  
 Ceylon, History of. By W. Knighton, Esq., 1 Vol. 8vo. *From the author.*  
 Calcutta Review, from commencement.  
 Ceylon, Account of, Percival's, 1 Vol. 4to.  
 Ceylon Calendars, 11 Vols.  
 Ceylon, view of, Bertolacci, 1 Vol. 8vo.  
 Ceylon, Description of, Cordiner's, 2 Vols. 4to.  
 Ceylon, Account of, By Davy, 1 Vol. 4to.  
 Ceylon, Eleven years in, By Major Forbes, 2 Vols.  
 Colebrooke's Essays, 2 Vols.  
 Ceylon Almanacs from 1818, 20 Vols.  
 Ceylon, Turnour's Epitome of the History of, translated into Tamul. By S. C. Chitty.  
 Ceylon, Ribeyro's History of, translated by George Lee, Esq., 1 Vol.  
 Chinese Novels, By Davis, 1 Vol.  
 Ceylon, Campbell's Field Sports of, 2 Vols. 8vo.  
 Ceylon, Reports on the Financial Condition of.  
 Ceylon Blue Books.  
 Ceylon, Bennett's.  
 Coin, Russian, pamphlet on, By Hawkins.  
 Chodzko, Specimens of the popular Poetry of Persia.  
 Ceylon Asiatic Society, Journal.  
 Cape of Good Hope, Magnetical and Meteorological Observations made there. *Presented by His Excellency Sir Geo. W. Anderson.*  
 Cinnamon Trade of Ceylon, pamphlet by J. Capper, Esq. *From the author.*  
 Catalogue of Oriental Manuscripts at Hartwell house.

D.

- Dictionary, Richardson's Persian and Arabic, 1 Vol. 8vo.  
 Dictionary, Malabar and English, By Fabricius and others, 2 copies.  
 Dutch, *vie des Gouverneurs des Establis. Hollandois aux Indes*, 1 Vol. 4to.  
 Dictionary, Rottler's Tamul and English, 1 Vol.  
 Diamonds, A Treatise on, 1 Vol.  
 Dakota Language, Dictionary of. See Smithsonian contributions, Vol. 4.

E.

- Essay on the Human Mind.  
 Electrical Magazine.  
 Eastern Traveller's Interpreter.  
 Eastern Nations, Dissertation on their language, literature, and manners,  
 By Richardson, 1 Vol.

F.

- Friend, The (of Ceylon), 5 Vols. 12mo.  
 Flora of Ceylon, By Dr. Gardner.  
 Flora Calpensis, By Dr. Kelaart.  
 Fa Hian, Pilgrimage of, 1 Vol. *From the editor and translator, Mr. Laidly.*  
 Fishes, Frogs, and Reptiles, By Swainson.

G.

- Goolistan, or Rose garden of Sadi, 1 Vol. 8vo.  
 Greenwich Magnetical and Meteorological observations.  
 Geological Map of England.  
 Geological Society of London, Journal of.  
 Grammar, Persian and Arabic, *From J. E. Middleton, Esq.*  
 Geographical Society of Bombay, Transactions.  
 Geographical Society of London, Journal.  
 Gullimore's Oriental Cylinders, No. 2.

H.

- Hadley's Grammar of the Moors.  
 History of Trade in the East and West Indies.  
 Hand Book for India and Egypt, 1 Vol.  
 History of the Naga Tribes.  
 Hindostanee Grammar, By G. Hadley, 1 Vol. 8vo.  
 Hindostan, Pennant's, 2 Vols. in 1, 4to.  
 Hindustani Grammar, Shakespear's, 1 Vol. 4to.  
 Hindostan, Maurice's Ancient History of, 2 Vols.  
 Hindoo Literature, Kindersley's, 1 Vol.  
 Hoffmeister's Travels in Ceylon and India, 1 Vol.

Heber's (Bishop) Indian Journal, 2 Vols.

Hobart Town, Meteorological Observations made there. *Presented by His Excellency Sir Geo. W. Anderson.*

Harvard's Missions in Ceylon and India.

## I.

India, Penal Code of, 1 Vol. folio.

Indies, History of Trade in East and West, 4 Vols.

Indes Vie des Gouverneurs des Etablis. Hollandois aux. *From Geo. Lee, Esq.*

## J.

Journal of Asiatic Society of Ceylon.

Journal of the Ceylon Branch of the Royal Asiatic Society.

Jamblich, De vita Pythagoræ, 1 Vol. 4to.

Japan, History of, By Kempfer, 2 Vols. folio.

## K.

Kindersley's Hindoo Literature, 1 Vol.

Knighton's History of Ceylon, 1 Vol. 8vo.

Kelly's Oriental Metrology, or Weights and Measures of India, 1 Vol. 8vo.

## L.

Lanka Nidhana, 4 Vols. 12mo.

Lassen's Bactrian Coins.

Logic, the utility of the Aristotelean, By W. Knighton, Esq., 1 Vol.  
*From the author.*

## M.

Map, Geological of England.

Milburn's Oriental Commerce, 1 Vol. 8vo.

Magnetical and Meteorological Observations at Greenwich, Cape of Good Hope, Hobarton, Toronto.

Magazine, Electrical.

Mill's British India, By Wilson, 8 Vols.

Madras and Bombay, Dissertation and Enquiries connected with, pamphlet.

Medical and Physical Science in India, Journal.

Meteorological Society, Transactions of.

Mahawanso, The, By Turnour.

Metrology, Oriental, Kelly's, 1 Vol.

Moon's Catalogue of Plants growing in Ceylon.

Malcolm's (Sir John) History of Persia, 2 Vols. folio.

Moths and Butterflies, British, 2 Vols.

Missions to Ceylon and India, Narrative of.

- Mind, Human, Essay on, By the Rev. G. R. Muttukistna.  
 MacCulloch's British Empire, 2 Vols.  
 Memoir of Dr. Quint Ondaatjie, (formerly of Ceylon) Councillor of the  
 Supreme Court of Justice of Netherlands India.  
 Malabar and English Dictionary, Vepery, 1786.

N.

- Naturalist's Library.  
 Novels, Chinese, By Davis, 1 Vol. 8vo.  
 Naga Tribes, History of the, 1 Vol.  
 Numismatic Chronicle.  
 Neptune, Report on the discovery of the Planet, to the Smithsonian  
 Institution.  
 Numismatic Society, proceedings for 1836, 1837, 1838-39.  
 Natural History, Annals and Magazine of.  
 Natural History, Directions for preparing specimens of, pamphlet 1852,

O.

- Observations during Magnetic Disturbances.  
 Orientalist's Guide.  
 Oriental Metrology, Kelly's, 1 Vol.  
 Observatory at Toronto, Observations there.  
 Observatory at the Cape of Good Hope, Observations there.  
 Observatory at Hobartown, Observations made there.  
 Ondaatjie, (Dr. Quint) Memoir of.

P.

- Pali Grammar, Clough's, 1 Vol. 8vo.  
 Persian Language Vocabulary, 1 Vol. 8vo.  
 Pennant's Hindostan, 2 Vols. bound in one, 4to.  
 Parbury's Hand Book for India and Egypt.  
 Persian Poems, 1 Vol.  
 Park's Travels in Africa, 1 Vol.  
 Persia, Sir John Malcolm's History of, 2 Vols.  
 Pearl Fishery of Ceylon, By Captain Stuart, 1 Vol.  
 Pantheism, Dr. Budding's Treatise on, (Dutch) 1 Vol.  
 Persia, Chodzko's Specimens of the popular Poetry of, 1 Vol.

R.

- Report on Egypt, By J. Brownrigg, 1 Vol. folio.  
 Raja Tarangini, The, or Annals of Cashmere, 1 Vol.  
 Royle's Productive Resources of India.  
 Russian Coin, pamphlet on.



Ruell's (Rev. J.) Singhalese Grammar, written in Dutch and published in Holland in 1699, with the Singhalese characters in wood-cuts.

*From the Rev. S. D. J. Ondaatje.*

Rig Veda Sanhita, 1 Vol. 4to.

Ribeyro's History of Ceylon, translated by Geo. Lee, Esq., 1 Vol.

Richardson's Vocabulary of the Persian and Arabic, By Hopkins.

Richardson's Dissertation on Eastern Languages.

#### S.

Seeravankinde Puranam, (in Tamil) 1 Vol. *From S. C. Chitty.*

Smithsonian Institution Contributions to Knowledge.

Simmond's Colonial Magazine.

Singhalese Poems, 1 Vol.

Sankya Karika, 1 Vol.

Statistical Society of London, Journal of.

Smithsonian Institution, Annual Reports of the Board of Regents for 1849 and 1850.

Smithsonian Institution, Report on the Discovery of the Planet Neptune.

Smithsonian Institution, Directions for preparing specimens of Natural History.

Skeen, Lecture on Typography.

Swainson's Birds, 2 Vols.

Swainson's Taxidermy and Biography, 1 Vol.

Swainson's Fishes, Frogs, and Reptiles.

Smithsonian Institution, Notices of Public Libraries in America.

Sidat' Sangarawa, or Grammar of the Singhalese Language, with Introduction, Notes, &c., By James De Alwis, 1 Vol. 8vo. *From the translator.*

#### T.

Tootee Namu, Persian Tales, translated into Hindoostanee.

Taxidermy, By Swainson, 1 Vol.

Tamil and English Dictionary, Rottler's, 2 Vols. 4to.

Turnour's Epitome of the History of Ceylon, translated into Tamil by S. C. Chitty.

Tamul Flora, By S. Chitty.

Thring's Colonies of Great Britain, pamphlet.

Typography, Lecture on, By W. Skeen, Esq.

#### V.

Vaccination, on the advantages of, By Dr. Kinnis.

Valentyn's Voyages, 4 Vols. folio, *from Dr. Gygar.*

#### W.

Wilson's (The Rev. Dr.) Doctrines of Jehovah, pamphlet.

Wallace's Memoirs of India, 1 Vol.

## ETHNOGRAPHICAL COLLECTIONS.

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### (a.) *Models and Specimens illustrative of the Arts.*

Seven Models of Native Boats, used in the trade and fisheries of the Island. *From J. Capper, Esq., viz;*

A yatra dhoney, or sailing vessel.

A padé or flat-bottomed boat.

A fishing padé boat.

A fishing canoc.

Another canoe or balama.

A Maldive vessel.

A boat used by the Malabars.

An ulkatuwa panhinda, or iron style for writing on the ola leaf.

Various specimens of Cloth from different parts of the Island.

Specimens of Vegetable fibre for cloths and cordage.

Specimen of the Riti Gaba, the Halgas or pole tree, and of the Sack made from the inner bark, as used by the natives.

Specimens of Dye Stuffs, and of the Madder plant, with specimens of dyed Cloth.

Specimens of Oils, Gums, and Resins.

### (b.) *Models, Prints, and Drawings illustrative of the scenery, places, buildings, and local usages.*

Various Views of Adam's Peak, Ratnapoora, &c.

Plan of the Ruins of Pollanuwera.

#### *Inscriptions.*

There are several Inscriptions in the possession of the Society, taken from Temples, stone slabs, &c. They are in course of arrangement.

## CABINET OF COINS.

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The Society had early in view the formation of a cabinet of coins,—which are always interesting as specimens of art, and valuable as documents; and the collection is not undeserving of attention. It is in course of arrangement.

THE WOODS OF CEYLON.

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A case containing eight dozen specimens of the woods of Ceylon, was presented to the Society by *A. Mendis, Mohandiram*, with a catalogue of their names, specific gravity, uses, and durability; and various other specimens of woods have been presented by *John Capper, Esq., and others*. The whole of these have been referred to a special Committee to collect them together, and make a Report on their number, description, character, and economical uses, with suggestions in regard to their future custody and inspection.

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## THE MUSEUM

Contains a specimen of the Oona hapooloowa or loris.

Some specimens of Birds.

Specimens of Lizards, Serpents, and other Reptiles.

Some specimens of Fishes.

Specimens of Crustacea.

Specimens of Beetles; including the කුරුමිසිය or cocoanut beetle, described in Mr. Capper's paper on the ravages of that insect. C. A. S. J.,

I. 49.

There was also a case of Butterflies. *From J. P. Green, Esq.*

Specimens of the Pearl oyster. *From James Stewart, Esq.*

A box of Shells. *From T. Morgan, Esq.*, and various other specimens of Shells, not yet arranged.

Various specimens of Corals and Sponges. *From J. N. Mooyaart, Esq., and others.*

The Minerals and Geological specimens collected by Dr. Gyax in the Saffragam District, forming a large and valuable collection. *Presented principally by Government.*

In this general collection, there are about 100 specimens of

Rock Crystal  
Hyalithe  
Amethyste  
Quartz  
Zircon  
Tourmaline  
Disten  
Beryl  
Epidote  
Hornblende  
Mica  
Garnet  
Spinel  
Corundum  
Chrysoberyl  
Topaz  
Apatita  
Feldspar  
Binnerite  
Wolfra

Rutil  
Pyrochlor  
Ilmenite  
Titan ore  
Arsenite of Nickel  
Hematite  
Arsenite of Kobalt  
Tin ore  
Chromate of iron  
Chrom. ochre  
Molybdena  
Iron pyrite  
Iron glance  
Magnetic iron ore  
Iron ochre  
Bog iron ore  
Anthracite;—with about as many Geological or Rock specimens from the same District.

A collection of specimens illustrative of the Geology of Newera Ellia. *From Dr. Kelaart.*

Other specimens of Rocks and Minerals from other parts of Ceylon; including a specimen of Ceylonite, *from Lieut. Henderson, C.R.R.*

Specimens of Iron-ore from the Matura District.

Specimen of Iron found at Galle in digging a well. *From Mr. G. Goonewardene.*

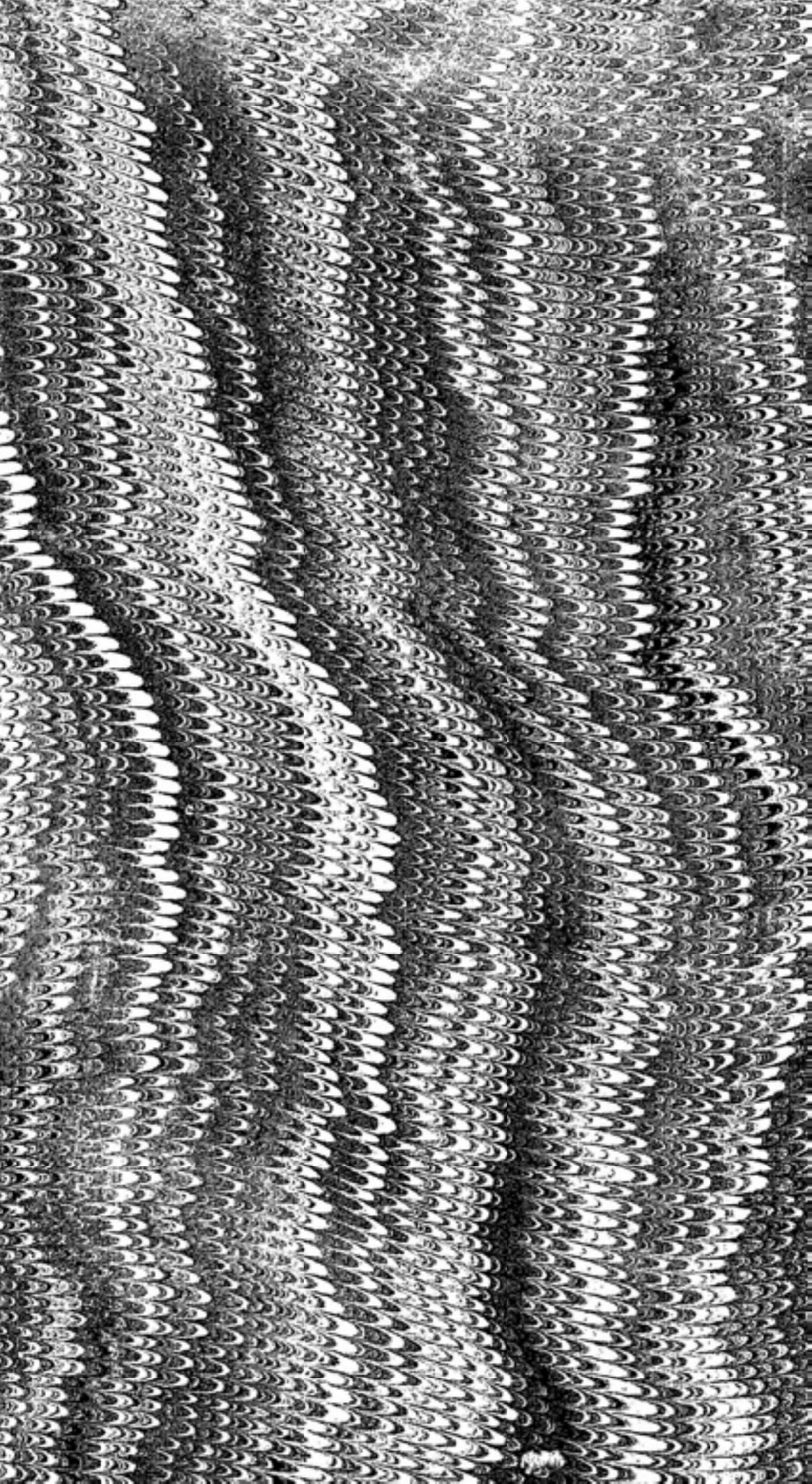
Some Iron pyrites. *From C. Whitehouse, Esq.*

Specimens of Fossils. Dr. Kelaart says, "The Limestone in which the Ceylon fossils are imbedded, is of a very compact and pure form. In one hand specimen we observed a fossil phalange about an inch in length, apparently of a large Saurian reptile. This unique specimen is now in the Museum of the Asiatic Society of Ceylon." Dr. Kelaart's Zoology of Ceylon, p. x.

Besides specimens of Copper and Lead ores from New South Wales, of the Garnet from the Cape, and of Tin ore from Malacca, *from Sir J. E. Tennent*;—of Spinel and Corundum from Pegu, of Chalcedony from Aden, of Topaz from Brazil, and of Turquoise from Khorassan, *all from Dr. Gygar*;—of Stilbite from Poonah, *from Dr. Buist*,—&c., as also a beautiful specimen of the Asbestos from the Pyrennees, *from Sir J. E. Tennent.*







*"A book that is shut is but a block"*

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